

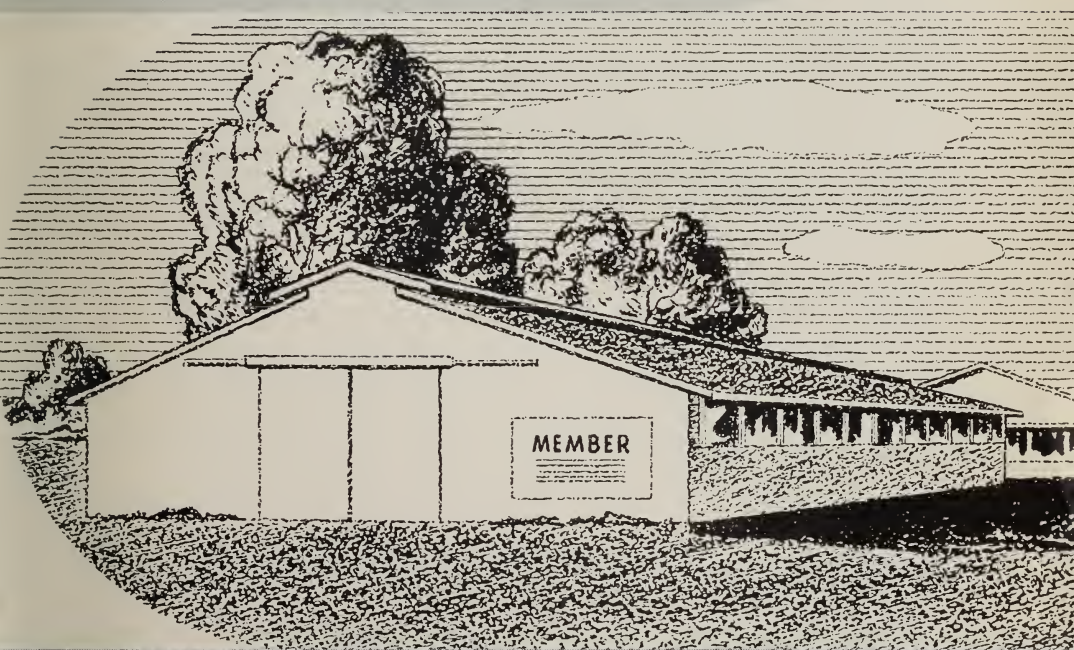


Division of Agricultural Sciences
UNIVERSITY OF CALIFORNIA

OPERATING PROBLEMS of a COOPERATIVE POULTRY and FEED ASSOCIATION

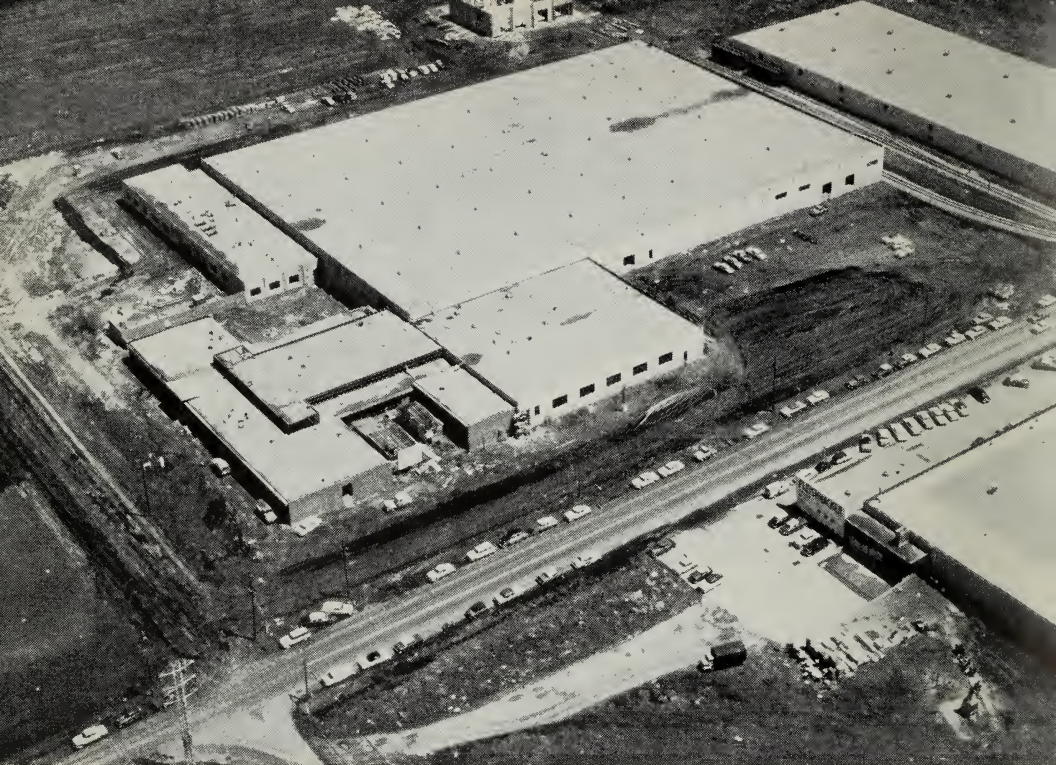
J. M. Tinley

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As part of its plan for modernization, in September, 1957, the P.P.C.C. moved its main office from the congested downtown area of San Francisco to San Leandro. In the new building, all aspects of egg handling, including packing in cartons, have been mechanized. As of September 1, 1957, all of the Association's Egg Department operations were consolidated in two mechanized plants—one at San Leandro, the other at Sacramento—which have replaced the 13 egg-handling plants referred to in the text. This aerial view of the San Leandro plant was taken May 2, 1957, when the building was nearing completion. (All photographs courtesy of the Poultry Producers of Central California.)

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OPERATING PROBLEMS OF A COOPERATIVE POULTRY AND FEED ASSOCIATION

J. M. TINLEY

H. E. ERDMAN

How a coöperative marketing agency adjusts to economic changes is described in this case study of the Poultry Producers of Central California.

Since 1916, the year of its establishment, the P.P.C.C. has had to adapt itself to two types of changes: 1) those occurring within the industry as the result of scientific advances and improved practices—for example, the shift from seasonal fluctuation in egg production to a steady, year-round supply; and 2) general changes affecting many aspects of our economy, such as population growth and the rise of chain stores and supermarkets. Both kinds of changes have contributed to increasingly keener competition and to an accompanying need for streamlined operations and greater efficiency.

The study presented here is based on the situation of the P.P. C.C. in 1953, a year when the need for a re-evaluation of its policies and practices became critical. This bulletin outlines the growth of the Association, analyzes its various operations as they were being conducted in that year, and recommends means for improvement, most of which have already been adopted, while others are still under study.

Findings and Recommendations¹

. . . a summary

The poultry industry of California expanded rapidly between 1900 and 1920. Egg production increased at such a rate that a considerable surplus of eggs became available for shipment to eastern markets. However, with the remarkable growth of population of the state since 1920, and especially since 1940, California has become an importer of eggs. Although egg production has continued to expand, the expansion has not kept pace with increased needs resulting from growing population. Within recent years, changes in production practices have considerably modified the seasonal pattern of egg production—so much so that in central California it is no longer necessary to place large quantities of eggs in storage during the spring months, previously months of flush production.

Up to about 1940 the great bulk of meat chickens was supplied from out of state. Since 1940, however, there has been a very considerable expansion in the production of meat varieties of chickens, especially fryers and broilers, and turkeys. Since the beginning of the present century, the number of dairy cows in the state has also increased. As a result of these expansions in the poultry and dairy industries, a large and growing market has developed for dairy and poultry feeds. The number of locally owned mills has increased, and, in addition, several nation-wide corporations have established feed-milling and merchandising facilities. It is to be expected, then, that competition in the sale of feed and supplies to livestock producers will be intensified. Competition is likely to be

particularly keen for the business of poultrymen and dairymen with large enterprises.

The growth of the P.P.C.C.

The Poultry Producers of Central California was organized in 1916 to receive, grade, package, and merchandise eggs received from member-producers. By stressing quality and service, the Association has built up an enviable reputation for its eggs in the consuming centers in central California.

In 1926 the Association established feed-milling facilities to provide an extra service for members. It also supplies members with needed farm supplies. Feeds and supplies are sold exclusively to members. Membership includes not only egg producers but also some producers of broilers, fryers, and turkeys, as well as smaller numbers of producers of other types of livestock. The Association as such has not entered directly into the financing of producers.

The total membership of the Association numbered about 11,600 in 1954, of whom only about one third were active egg shippers. All persons who wish to join, however, are required to sign an egg-marketing agreement whether or not they are producing eggs. This provision excludes from membership, and hence from patronage of the feed and supply services, any egg producers who do not wish to sell eggs through the Association.

During 1954 eggs were graded and candled at some 13 branches. With the installation of automatic egg-handling facilities at Modesto, however, grading and packaging have since been discon-

¹Submitted for publication September 19, 1956.

tinued at two branches. Automatic equipment is soon to be installed in several areas, thus permitting a further reduction in the number of branches performing this function. The Association operates six feed mills strategically located throughout the territory it serves. Including the egg-grading stations and the feed mills, the Association sells feed and supplies and receives eggs at 44 branch warehouses and through 6 agencies.

In 1953 the total volume of business transacted by the Association amounted to about \$60,000,000, approximately half being from the sale of eggs and half from the sale of feed and supplies. The capital required for the acquisition of facilities and for operating and inventory purposes was supplied wholly by members. Capital for the Egg Department is secured concurrently from members through a deduction on each dozen eggs delivered. Capital for the operation of the Feed Department is obtained by allocating up to 50 per cent of the net overage (or savings) made annually in the sale of feed and supplies. The amounts contributed by members to capital are thus proportionate to their use of the Association's services. The funds contributed are revolved back to the members about every two years. In addition to these two main revolving capital funds, the Association in 1953 provided for a General Capital Fund to which members could subscribe. By the end of 1953, some 900 members had subscribed nearly \$3,500,000 to the General Capital Fund. The Association found itself with capital resources in excess of its needs, and further contributions to the Fund were temporarily suspended.

Although in many important respects the Association appears to have adjusted its operations to meet the changes in environmental conditions, the prospect of stronger competition in the years ahead indicates a need for further streamlining of operations and eliminating, wherever possible, certain high-cost practices.

One of the most fundamental and immediate problems facing the Association is the need for a more realistic and equitable method of dealing with large- and small-scale producers in both the Egg and the Feed Departments. All information analyzed points to the fact that servicing costs per member are high for those whose patronage is small in relation to those whose patronage is large. Under the cost-allocation procedures in force when this study was made, it was evident that large member-patrons were to some extent subsidizing business with small ones. This weakens the competitive position of the Association in securing and maintaining the patronage of producers with large poultry and dairy enterprises. These members, although they constitute only a small proportion of the total membership, contribute the bulk of the patronage of both the Feed and Egg Departments.

Finally, there is much evidence that the Association needs to develop a more comprehensive plan for promoting member relations and securing new members. In the past the Association appears to have relied primarily on its long- and well-established reputation for service to recruit new members. Because of the highly competitive situation in prospect, this is not enough. Misunderstandings arise and must be cleared up. Patrons sooner or later die or retire from active operations. If the Association is to go ahead, a constant stream of new members is necessary to replace those who drop out.

The specific recommendations that follow are suggested with a view to improving both the operations of the Egg and Feed Departments and the over-all position of the P.P.C.C.

Feed and Supply Department

In order to increase the effectiveness of the Feed and Supply Department, it is important that special efforts be made to increase the volume handled and, where-

ever possible, to effect internal economies in the processing and distribution of feeds and supplies.

Increased volume. In order to increase patronage, it will be necessary for the Association to adopt more effective means of obtaining new members. For this purpose it is recommended that the Association establish a field-service department staffed by persons trained in membership relations and with a knowledge of poultry and dairy production techniques. It is also important that branch managers work more closely with field-service men in helping members and in recruiting new members.

It also seems desirable to remove some of the existing restrictions on membership, especially the requirement that every member sign an egg-marketing agreement. Only members who wish to utilize the services of the Egg Department should be required to sign the agreement. Egg producers who have other outlets for their eggs would thus be permitted to patronize the Feed and Supply Department. In order to discourage egg-shipping members from withdrawing from the contract, it is suggested that a member who withdraws his patronage from the Egg Department be required to wait for two years before he may again sign an egg-marketing agreement and ship eggs through the Association.

All reasonable means should be adopted to expand feed sales to turkey, broiler, and fryer raisers. In view of the risks involved, it seems unwise for the Association to finance more liberal credit terms to meat-bird producers and dairymen. At the same time it should be realized that by far the most important reservoir of potential additional feed business is with these two groups. It is recommended, therefore, that the Association explore all means whereby it can aid such producers in arranging for financing through commercial banks, production-

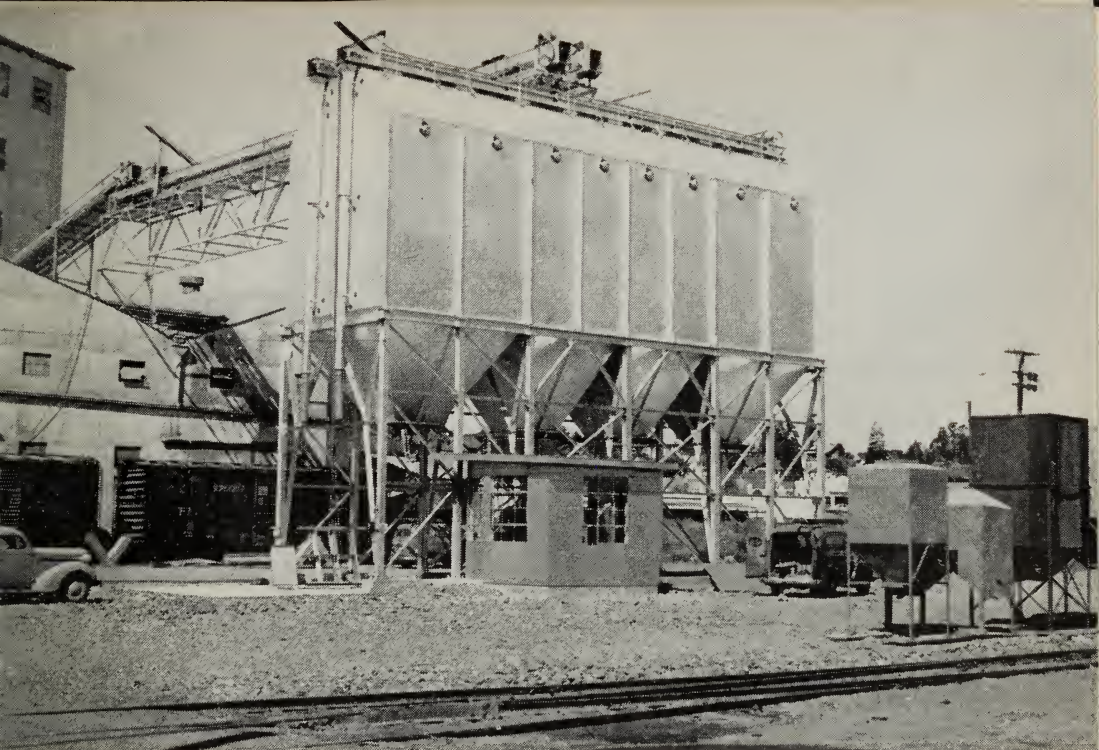
credit institutions, and other lending agencies. The Association may well reconsider the advisability of sponsoring a grower-financed, production-credit corporation for the meat-bird producers.

Milling costs. Every effort should be made to reduce milling costs. Increased volume is a prime requirement. It is recommended specifically that all mills be equipped to handle bulk feeds. As soon as this has been done, the Association should revise its bulk-feed pricing policy so that these prices may reflect more accurately the actual costs of milling and distributing feed in bulk. At the same time every encouragement should be given to members to equip their poultry and dairy enterprises to handle bulk feeds.

Milling costs (and also branch operating costs) could undoubtedly be reduced by decreasing the number of mixed feeds handled by the Association—especially those of a medicinal nature. The annual sales of many of the special mixed feeds constitute only a very small proportion of all mixed feeds sold, and turnover of such feeds in branches is slow.

Branch operations. The volume of feeds and supplies handled through many of the branches is so small in relation to capacity that costs of handling feed in such branches are relatively high. The problem of maintaining volume of feed in branches is likely to be aggravated as the volume of bulk sales direct from mills increases. Factors other than volume cause the cost of handling feed in some branches to be high.

It is recommended that the Association give careful and continuous study to ways and means of reducing branch operating costs. Some branches should perhaps be discontinued. It may also be possible to extend the system of operating two or more branches under a single branch manager. Although agency arrangements for the sale of feed and



The bulk storage facilities at the Petaluma mill. A scale is installed beneath these large tanks. Trucks are loaded by gravity.

collection of eggs have not proved very satisfactory in the past, the Association may well consider fuller use of the agency method in areas where members are scattered and have small enterprises.

Handling of members' accounts.

Considerable expense is involved in making sales of feed and supplies in small quantities and of small total value. These costs involve the time spent by a branch manager in making the sale, posting, billing members twice a month, and servicing delinquent or overdue accounts.

It is recommended that the Association consider a plan under which members would settle accounts on the basis of invoices rather than bi-monthly statements. Such a plan is already used, apparently with satisfactory results, by two large feed-selling coöperatives on the Pacific Coast.

Egg Department operations

For a number of years a service charge of 50 cents has been levied on all member accounts with the Egg Department. This charge is made to cover the estimated cost of handling each member's account regardless of the number of cases delivered weekly. This charge was based on estimates made prior to 1950. It is recommended that the Association consider raising the service charge from 50 to 75 cents per member account. This would partly reflect the increased costs of handling member accounts and would also defray some of the additional costs involved in picking up at the ranch small lots of two or three cases of eggs at a time.

As an alternative, if an increase in the service charge is deemed inexpedient, the Association might consider two size pools. All members delivering less than, say, 10 cases of eggs a week would be

placed in one pool, all other members in the other. The higher costs of picking up eggs and the administrative and handling charges involved in small deliveries could then be assessed against the small-shipment pool.

Capital funds

It is recommended that the Board of Directors give careful consideration to two possible changes in its methods of obtaining capital from members. The General Capital Fund has provided the Association with more funds than are needed to finance the purchase of Egg and Feed Capital Fund certificates from members who need ready cash. The excess in the General Capital Fund could be used by the Association to finance feed- and egg-storage operations and for other purposes. However, with the changed seasonal pattern of egg production, egg-storage operations in the future are likely to be nominal. Heavy advance purchases of feed and supplies are likely to be highly intermittent. It would seem to be sounder policy for the Association to borrow from commercial banks and other lending institutions to meet exceptional seasonal needs for additional funds. Because of the Association's excellent financial condition, it should be possible to borrow funds for

short-term needs at much lower rates of interest than the 5 per cent now paid to small numbers of members who have invested in the General Capital Fund.

The Board of Directors might also consider extending the period of revolution of Egg and Feed Capital Funds. The Association would be able to make somewhat higher current returns to members for eggs delivered or to reduce prices on feed (or increase annual cash patronage refunds) if annual member contributions to these funds were reduced.

Personnel

It is recommended that the Association revise its personnel recruitment and training program so as to ensure that each year it will recruit one or more young men who have had training in economics and in livestock and poultry production. The in-service training of these young men should be designed to test their aptitudes for more important positions in the Association. Some of these young men should be of such calibre that they can eventually fill top-management positions.

The Association should also consider the advisability of establishing an economics section headed by a well-trained economist.

Purpose and Scope of the Study

An opportunity to study the operations of a coöperative marketing agency arose in 1953, when the Poultry Producers of Central California² asked if the Giannini Foundation of the College of

² Known colloquially as the P.P.C.C. This abbreviated designation and also the term "Association" will be used in this report interchangeably with the longer title.

Agriculture, University of California, might undertake an economic analysis of its organization and operations.

One long-term research objective of the Department of Agricultural Economics is the study of operations of marketing agencies—including agricultural coöperative associations engaged in marketing farm products—with a

view to determining ways to increase handling and marketing efficiency. An important consideration is the extent to which such agencies are able to adjust their operating practices to conform to fundamental changes in the economic environment in which they operate.

Because of the great economic changes that have taken place in recent years, a comprehensive survey and appraisal of the Association's operations was felt to be in order, both in the interest of the Association and that of the economists concerned with the means by which a co-operative adjusts to changes occurring both within the industry and in the general economic scene. The problems of operation and adjustment faced by that agency were in many respects similar to those faced by many other marketing agencies, both coöperative and independent, in California as well as in other states. An analysis of the operations of the P.P.C.C., which had professed its willingness to coöperate fully in such a study, thus offered the Department of Agricultural Economics a case study in the broad field of efficiency in marketing farm products.

Since a broad study of egg marketing was already under way in the Department of Agricultural Economics, this function of the Association has been dealt with only as it relates to other phases of the organization. Among the operations specifically analyzed were certain aspects of member relations, the marketing contract, credit policies, volume of egg and feed business done with large and small producers, certain aspects of milling operations, operation of branch plants, handling of investment funds, and finally the suitability of the present form of organization.

Results of the study as it progressed, with recommendations, were made available to the Board of Directors of the P.P.C.C. so that action could be taken in matters requiring immediate decision. Work was begun early in 1954, and two progress reports were made to the Board of Directors—one in June, 1954, the second in August, 1954. Both reports were considered in detail by the Board of Directors and the management of the Association, and appropriate action has been taken on some of the suggestions made. The final report, presented herein, embodies the contents of the progress reports, certain background information relative to the development of the Association, and additional material not covered in the progress reports.

Sources of data. The information on which this report is based was obtained mainly from the records of the Association and from interviews with its directors, personnel, and members. During the survey, over 80 individual poultrymen (both members and non-members) were interviewed in regard to membership relations. The authors also contacted members of the Federal-State Market News Service, secretaries of production-credit associations, and officials of other financial institutions such as banks. Supplemental data on credit policy were obtained from other poultry associations in the western states. Some material was also drawn from a separate study of membership contracts of other California coöperative Associations.³

³ Only brief reference to the study of membership contracts will be made in this report. More detailed information will be included in a comprehensive report on this subject to be issued later.

The P.P.C.C., Its Origin and Development

Historical background

From 1900 to 1915 egg production in the western states expanded rapidly, the predominant breed of chicken being the White Leghorn, noted for its egg-laying qualities. By the end of that period, production in the western states exceeded the requirements of the area, and important quantities were being shipped to eastern markets, mainly to New York City.

In the San Francisco Bay area, where similar conditions prevailed, marketing conditions were far from satisfactory from the producers' standpoint. Most of the eggs were purchased from producers on an ungraded basis at prices based on the quotations established by trading on the San Francisco Wholesale Dairy Produce Exchange. Prices had tended to fluctuate widely as the market changed seasonally from a deficit to a surplus condition. Poultrymen generally believed that the dealers manipulated these quotations and profited unduly by the cold storage of eggs as well as by the eastern shipping business which had been developing for a number of years. Little effort was being made to improve quality, to improve and standardize grading and packing, or to develop regular eastern outlets.

These unsatisfactory market conditions led to the organization of a number of egg-producers' coöperative associations in California and other western states. Among these was the Poultry Producers of Central California, which was organized in the fall of 1916. In the early days most of its membership was located in Marin and Sonoma counties, but the organization soon began to expand into

other counties of central California. The Association now serves some 30-odd counties in central and northern California (see figure 1).

When the Association began business late in January, 1917, it contracted to sell its eggs to a group of San Francisco dealers at prices to be established by trading on the Exchange. The supply was to be allocated to the dealers in proportion to their previous year's purchases. In 1918 the Association undertook its own marketing, selling partly to some of the dealers it had supplied during the past year but also developing sales to retailers and to eastern outlets. By 1919 it was able to announce the establishment of an agency in New York City. In 1922 the Association joined four other Pacific Coast associations in forming the Pacific Egg Producers Coöperative, Inc., a New York agency, to market its members' eggs in eastern markets.

The Association very early began to encourage its members to improve quality and to develop standardized grading and packing of eggs in its packing plants. The attention given to standardized grading and packing in this and the other associations, and the availability of large quantities of eggs through "P.E.P.," as the eastern marketing agency came to be known, soon established an enviable reputation for western eggs in eastern markets. Such eggs regularly sold at premiums over prices paid for eggs from nearby sources.

The success of the Association in selling its members' eggs led many members who were dissatisfied with prevailing quality and prices of feeds to urge the Association to undertake the han-

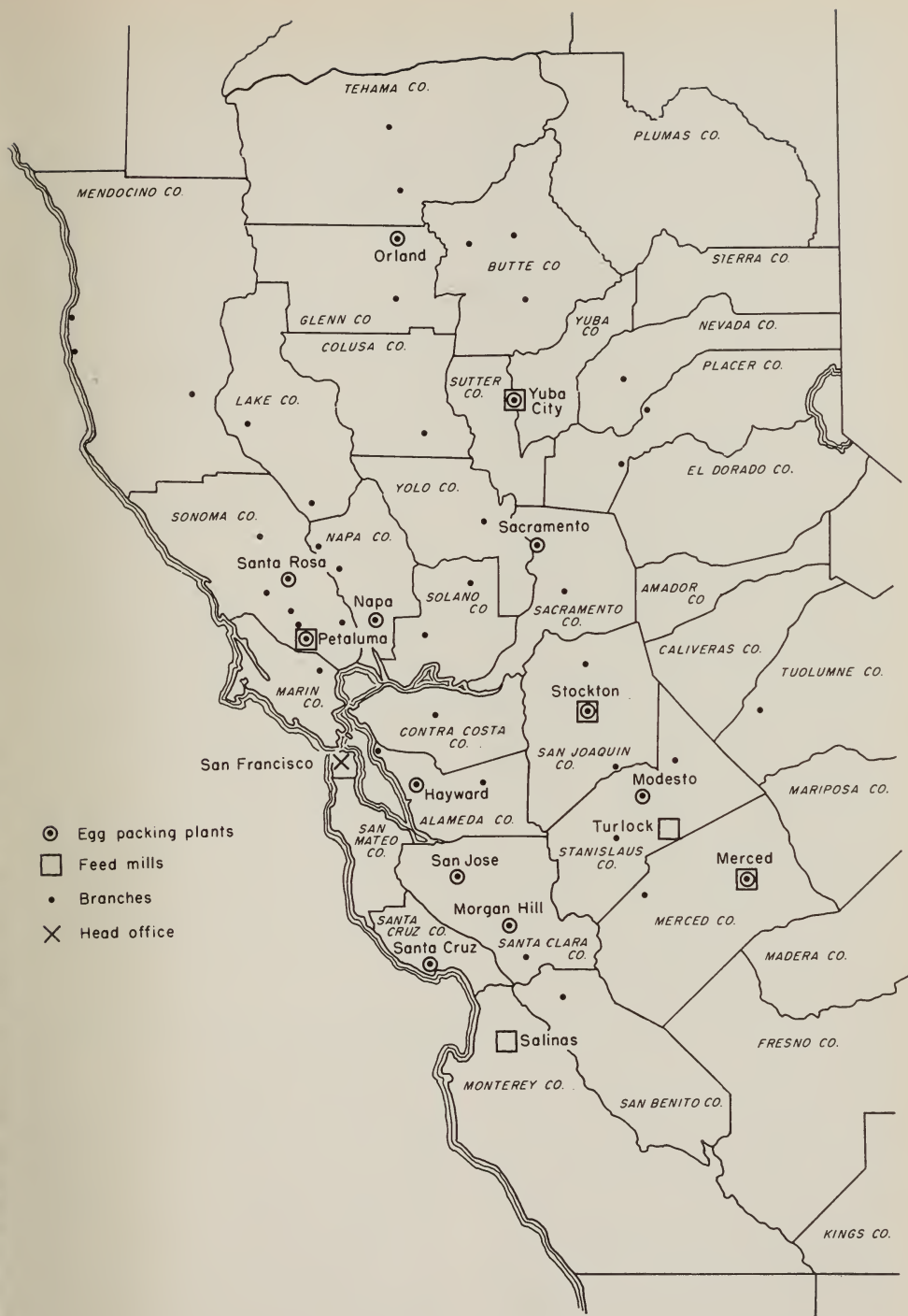


Fig. 1. Area served by Poultry Producers of Central California showing location of branches.

dling of poultry feeds. Moreover, many local feed dealers also purchased eggs, so that members of the Association were under continual pressure to transfer their egg business to their feed suppliers.

At the annual meeting early in 1926, the members voted by a large majority to establish a Feed and Supply Department, and the necessary bylaw changes were made. Facilities were soon acquired where needed, and by July 1 the Association was ready to supply feeds.⁴

Feeds and supplies were sold to both members and nonmembers, sales to nonmembers being made through the Producers Company, Ltd., a subsidiary corporation. In order to make more adequate use of milling and branch-warehouse facilities, feed was sold also to dairy producers, hog raisers, and turkey producers. Later, because of possible legal (income tax) complications, the Association decided to discontinue sales of feed to nonmembers. Farmers who were not egg producers were permitted to become regular members of the Association by signing the egg-marketing contract—even though they were not, or had no intention of, producing eggs in commercial quantities.

Although the Association nominally also handled supplies other than feed, no particular efforts were made to expand sales of such supplies. In 1939 the Farm Credit Administration, at the request of the Board of Directors, made an analysis of the Association's feed and supply business and recommended that the Association give more attention to promoting sales of supplies to members.⁵ In some measure this has been done. In 1953 sales of supplies, including petroleum products, amounted to

about 9 per cent of the total value of feed and supplies sold, as compared with 1.3 per cent in 1939.

The Association has made several efforts to handle poultry meat as an additional service for members. A Poultry Department was authorized in February, 1926, and established soon thereafter.⁶ Before the war it operated killing and dressing facilities for a time. This service proved unprofitable, however, and was finally discontinued. After the war the Association also established a poultry auction at which members could sell chickens not needed for egg production. This activity, too, was not well supported and was discontinued.

The Association has financed its operations almost from the start under what is known as the revolving-fund method of capitalization.⁷ Under this method individual members contribute to capital funds annually on the basis of patronage. Evidence of contributions is in the form of certificates of interest, which are numbered chronologically. As soon as sufficient capital has been accumulated to meet the needs for facility and operating capital, earlier issues of certificates of interest are retired as new contributions are made by the patrons. The plan has had the effect of drawing capital from proceeds of sales in proportion to business contributed by the individual members (see pages 52-56).

Nature of the present organization and its operations

The Poultry Producers of Central California is now organized as a nonstock coöperative association under Chapter 4, Division VI, of the Agricultural Code of the State of California. It is what is

⁴ *Nulaid News*, 3(11):9-13; 4(5):5.

⁵ Knapp, Joseph G., *Survey on Possibilities of Expanding Supply Operations of the Poultry Producers of Central California*, San Francisco, California (Washington: 1940), p. 2. (U. S. Farm Credit Administration, Coöperative Research and Service Division, Special Report A73.)

⁶ *Nulaid News*, 3(11):9-13; 4(5):5.

⁷ Actually, the revolving feature was not introduced until the Association changed its form of organization to the nonstock form in 1923. The original plan for building capital by means of a one-cent-a-dozen deduction from proceeds was discontinued for a short time before the reorganization.

known as a centralized type of association in that individual producers hold membership directly in the Association rather than in local units. Branches, including feed mills, egg-receiving and candling units, and local warehouses, are owned and operated by the Association and not by local associations of members who may patronize such branches.

The main office of the Association is located in San Francisco where all permanent records are kept and where most business activities center. These include such matters as the handling of capital funds, local sales of eggs, purchases of feeds and supplies, and the mailing of weekly checks for eggs. IBM machines have been installed to speed up and reduce the cost of calculating the weekly returns to members.

In 1954 the Association was operating six feed mills located at Petaluma, Yuba City, Stockton, Turlock, Merced, and Salinas (figure 1). Feed processed at these mills was distributed not only to members in the immediate vicinity of the mills but also to nearby branches and agencies.⁸ Feed and supplies were distributed through some 54 branches, including the six mills and the six agencies. All of these branches also served as points at which eggs produced by members were assembled—with the exception that eggs were not received at the Turlock mill building but at the Turlock branch, a separate facility in that town. Eggs assembled at local branches were sent to some 13 stations or branches⁹ for candling, grading, and packing. The 13 branches handled sales

⁸ The Association had agency agreements with merchants in six localities (Eureka, Fort Bragg, Mendocino, Fairfield, Arbuckle and Woodland) for the sale of feed to members and the assembly of eggs from members.

⁹ At the time this study was made, automatic sizing, counting, and cartoning equipment was being installed at Modesto. It was anticipated that at a later date one or more candling and packing stations (for example, those at Merced

to grocery stores, restaurants, hotels, and institutions in surrounding towns and shipped any excess over local needs to one of the branches located in the larger urban areas. Some of the smaller branches were operated only two or three days a week. In such cases one manager could supervise two branches.

The membership of the Association amounted to about 11,400 in 1954, only about a third of whom shipped eggs. About 29 per cent of the total membership is located in the north coast area (Humboldt, Mendocino, Lake, Sonoma, Marin, Napa, and Solano counties); just under 14 per cent in the coastal area including San Francisco (Contra Costa, Alameda, San Mateo, Santa Clara, Santa Cruz, Monterey, and San Benito counties); almost 31 per cent in the Sacramento Valley area; and 26 per cent in the San Joaquin area (south to Merced County). A fairly large proportion of the members in the San Joaquin area are dairymen and turkey producers who do not produce chicken eggs in commercial quantities.

The bylaws provide that voting rights of members are unequal. Each member is entitled to one vote by virtue of membership, plus additional votes based on patronage during the fiscal year just closed. The units of patronage on which additional votes are allowed are: egg deliveries, \$250; poultry, including turkeys, \$250; and feed and supplies purchased, \$500. Thus, a member who has sold through the Association during the past year eggs to the value of \$3,000 and poultry to the value of \$500, and who has purchased \$2,000 worth of feed and supplies, would be entitled to a total of $1 + 12 + 2 + 4 = 19$ votes. This method of voting, not uncommon among farmers' coöperative associations, is designed to give members who make considerable

and Stockton) could be discontinued, and the larger volume could be concentrated at Modesto. Plans were also under way to install automatic equipment at Sacramento.

use of an association's services a greater voice in determining its policies and affairs than those who make less use of its services. As pointed out elsewhere, the members whose patronage is largest also contribute proportionately more to the capital needs of the Association.

The business affairs and corporate powers of the Association are vested in a board of 11 directors, including one director-at-large, nominated annually by the Vice-President, Agricultural Sciences, of the University of California, or by the Director of Agriculture, California State Department of Agriculture, and approved by the Board of Directors and elected at the annual meeting. The term of office of the director-at-large is one year. All other directors are elected for a period of two years, five retiring each year.

Directors are nominated and elected by districts before the annual meeting. There are six districts in all. The first, or North Bay district, has five directors. The others have one director each. Only members residing in a given district may nominate and vote for the director or directors in that district. The bylaws (Article IV, Section 3) provide that a director, in order to be qualified, "shall

have been engaged in the commercial poultry business for a period of not less than three (3) years, and at the time of election shall be a poultry producer and a member of the association."

A general manager, appointed by and responsible to the Board of Directors, is in charge of the executive or administrative affairs of the Association.

During the year 1953 the total volume of business transacted by the Association amounted to \$61,011,000. Of this amount, sales of eggs accounted for \$31,076,000, or about 50.9 per cent; sales of poultry (including turkeys), \$227,000, or 0.4 per cent; and sales of feed and supplies, \$29,708,000, or 48.7 per cent.¹⁰

The condensed statement of the balance sheet as at the end of the year 1953 shows the Association to be in a very strong financial position. Current assets exceed current liabilities by about 3½ to 1. Even if patronage refunds for 1953 (\$2,221,000) are added to current liabilities, the ratio would still be greater than 2 to 1.

¹⁰ During 1954 sales of eggs grossed \$25,241,000 and of feed and supplies \$26,952,000, or a total of \$52,193,000. Comparable figures for 1955 were \$27,453,000, \$26,675,000, and \$54,128,000, respectively.

Condensed balance sheet as of December 31, 1953

Assets		Liabilities	
Current	\$11,331,000	Current	\$ 3,317,000
Investments	104,000	Producers Company, Ltd.	155,000
Fixed assets	3,731,000		
Deferred charges	219,000		
		MEMBERS EQUITY	
		Membership Capital Fund	116,000
		General Capital Fund	3,451,000
		Egg Capital Fund	928,000
		Feed Capital Fund	4,141,000
		Poultry Capital Fund	18,000
		Reservations for contingencies	1,038,000
		Due members as patronage	
		refunds for 1953	2,221,000
Total.....	\$15,385,000	Total.....	\$15,385,000

The Economic Environment

Changes in the economic setting

Before proceeding to an analysis of the internal operating policies and programs of the Association, it seems desirable to discuss briefly a few of the more important economic changes that have occurred in central California since the Association was first organized. These economic factors have an important bearing not only on the poultry industry of the area but also on the organization and operations of the Association itself.

Relative growth of population and of the chicken business.

The data in table 1 show an irregular rate of growth in the state's population and its poultry industry. Thus, in the period 1910-1920 the population increased 44 per cent while the number of chickens increased 84 per cent. It was during this period that the Association was organized and California changed from an in-shipment to an out-shipment basis. In the next decade both population and the industry increased at about the same rate, but in the decade 1930-1940, population continued to grow whereas chicken numbers actually decreased. By 1938 the state was on a net in-shipment basis.¹¹ The decrease for the decade is shown both in the census data (items (a) in column 3) and in the crop estimates data (items (b) in columns 3 and 5). In the period 1940-1954 population increased rapidly while the numbers of chickens and egg production were tending to catch up, though the state still remained on an in-shipment basis.

¹¹ Erdman, H. E., G. B. Alcorn, and A. T. Mace, *Egg Marketing in the Los Angeles Area*, California Agr. Exp. Sta. Bul. 656, 1941, p. 63.

Table 2 shows the remarkable growth in California of broiler and turkey raising. Each offers a big opportunity for increased sales of poultry feeds and supplies. Much of this expansion has been in fairly large commercial enterprises.

Retail outlets. Before World War I (and even during the 1920's), most eggs reaching consumers were merchandised through a large number of independently owned neighborhood grocery stores. Today a large proportion is handled by chain grocery stores or supermarkets. In most large centers of consumption milk distributors also distribute eggs on their milk routes. In a few instances the larger chain store firms have undertaken the purchase of eggs directly from producers and now operate their own grading and packing plants. The significance of these changes is that the chains and supermarkets require large volumes of uniformly graded and packaged eggs and the assurance of a continued supply. By the same token, the loss of a chain store customer or group of supermarkets may be a serious loss of volume for an egg-packing firm.

Handling of feed. Although originally most of the poultry coöperatives in the western states were organized primarily to market eggs, most of them now operate extensive feed-milling and marketing operations. In order to ensure more efficient use of feed-milling and distribution facilities, all of these associations have extended their operations to livestock producers generally. So important has the feed (and supply) business become for many of these associations that the value of feed and supplies equals or exceeds the value of eggs marketed. In recognition of the importance

of the feed and supply business, several of the associations have changed their corporate names so as to de-emphasize the poultry aspects of their operations.

Of special significance within recent years has been the shift from sales of sacked feeds to feeds in bulk. Handling of feeds in bulk permits important savings in deliveries to the medium-to-large poultry and dairy enterprises. Moreover, the use of mechanical equipment for distributing feed on poultry and dairy farms has resulted in even greater econ-

omies by reducing the man-hours of labor required in feeding.

Competitive conditions. Competition in the marketing of eggs and feeds in central California has been relatively keen for many years. Since the end of the war the entrance of several national firms into feed milling and distribution in California has introduced a new competitive factor into the feed business. In addition, many locally owned feed firms have expanded their facilities and areas of marketing. Many of these are willing

Table 1. Population, Chickens on Farms, and Egg Production in California, Selected Years, 1910-1954

Year	Population		Chickens on farms		Egg production	
	Number	Percentage change from previous period	Number	Percentage change from previous period	Number	Percentage change from previous period
	1	2	3	4	5	6
	thousands	per cent	thousands	per cent	millions	per cent
1910	2,378	..	5,666(a)		Not available	
1920	3,427	44	10,427(a)	+84	Comparable data not available	
1930	5,677	66	17,467(a) 21,300(b)	+67	2,242	
1940	6,907	22	13,283(a) 15,654(b)	-24 -26	1,761	-21.4
1950	10,586	53	17,938(a) 23,416(c)	+35 +50	3,314	+88.2
1954	12,554	19	28,349(c)	+25	4,577	+38.1

Sources:
 Column 1: For 1910-1950, inclusive, U.S. Bureau of the Census, "1950 Census of Population" (Washington: Govt. Print. Off.), Vol. I, p. 1-8. For 1954, U.S. Bureau of the Census, "Current Population Reports, Population Estimates," series P-26, no. 125 (Washington: Govt. Print. Off., December, 1954).
 Columns 2, 4, and 6: Computed by authors of this report.
 Column 3: (a) For 1910, U.S. Bureau of the Census, "Sixteenth Census of Agriculture" (Washington: Govt. Print. Off., 1940), Vol. III, p. 667. For 1920, 1930, 1940, and 1950, U.S. Bureau of the Census, "1950 Census of Agriculture, California" (Washington: Govt. Print. Off.), Vol. I, part 33, p. 11. (b) U.S. Department of Agriculture, "Farm Production, Disposition, and Income from Chickens and Eggs, 1909-1944" (Washington: Govt. Print. Off., 1953), Statistical Bulletin 133, p. 17. Processed. (c) U.S. Department of Agriculture, "Farm Production, Disposition, and Income from Chickens and Eggs, 1909-1944" (Washington: Govt. Print. Off.), yearly issues. The (b) and (c) figures are probably the more accurate.
 Column 5: Years 1930 and 1940 from source for column 3 (b), p. 13. Years 1950 and 1954 from annual issues used for column 3 (c).

Table 2. Estimated Production of Broilers and Turkeys in California, Selected Years, 1934-1955

Year	Broilers	Turkeys
	thousands	
1934.....	1,000	1,691
1940.....	6,000	3,340
1954.....	50,179	10,170
1955.....	48,516	10,164

Sources:

Broilers: For 1934 and 1940, U.S. Department of Agriculture, "Farm Production, Disposition, and Income from Chickens and Eggs, 1909-1944" (Washington: Govt. Print. Off.), p. 93. For 1954 and 1955, U.S. Department of Agriculture, "Farm Production, Disposition, Cash Receipts, and Gross Income, Chickens and Eggs, 1954-1955" (Washington: Govt. Print. Off., April, 1956), p. 10. Processed.

Turkeys: For 1934 and 1940, U.S. Department of Agriculture, "Farm Production, Disposition, and Income from Turkeys, 1929-1944" (Washington: Govt. Print. Off., 1953), p. 44. Processed. For 1954 and 1955, U.S. Department of Agriculture, "Farm Production, Disposition, Cash Receipts, and Gross Income, Turkeys, 1955-1956" (Washington: Govt. Print. Off., March, 1956), p. 2 and 3. Processed.

to finance producer customers (in whole or in part) by the sale of feed and supplies on extended credit. It is significant that noncoöperative feed concerns do most of the business with fryer and broiler and turkey producers. In other words, coöperative associations in central California have not participated proportionally in the growing, but admittedly more risky, sale of feeds on credit to producers of meat types of poultry. It is significant that nearly all independent feed dealers, while not neglecting the small poultryman, are most aggressive in soliciting the patronage of producers with large poultry enterprises. There are, without question, many advantages and economies in selling feed to the larger poultry enterprises. These are usually better financed and operated than many small ones. It is easier to supervise credit granted to a few large enterprises than to a large number of small producers. Bookkeeping, solicitation, and delivery costs are reduced.

A somewhat parallel situation exists in the procurement and merchandising of eggs. During the last few years at least one large chain store company has entered the egg procurement and pack-

aging field in central California. Its basis of paying for eggs is such as to attract large, rather than small, poultry producers.

On the egg-merchandising front, independent egg handlers also appear to concentrate much of their sales effort on large retail store outlets or larger hotels and restaurants. Because it is undoubtedly less expensive to deliver eggs in volume to large stops than to small ones, independent dealers are often willing to make attractive price concessions for such business.¹²

Effect of environmental conditions on Association operations

The changes in environmental conditions and especially in the nature of competition in the egg and feed industries, outlined briefly in the preceding pages, lead to the inevitable conclusion that if the Association is to continue to provide effective service to its member

¹² A similar situation obtains in the wholesale and retail delivery of milk in California cities. The California Bureau of Market Milk Control attempted in 1956 to introduce resale price schedules for market milk to reflect differences in cost of delivering milk to customers taking varying quantities of milk per stop.

patrons, it must adapt its operating policies and practices to meet the changed conditions. In order to improve or even to maintain its status in the egg and feed industries of central California, the Association's operating policies and practices must be such as (1) to maintain efficient operations at both the administrative and operating levels and (2) to ensure that costs of doing business are fairly and equitably apportioned among patrons with operations of varying sizes.

It would be inequitable and in conflict with the basic coöperative principles to have a cost-apportioning system under which small producers subsidize large ones. On the other hand, a cost-apportioning system that subsidizes the small producer at the expense of producers with larger enterprises is likely to place the Association in a progressively less favorable competitive position. Such a policy, if followed, would permit competing egg buyers and feed dealers eventually to obtain the "cream" of the egg and feed business, leaving the Association to service mainly the small, high-cost patrons together with a few loyal larger producers.¹³ It cannot be argued logically that basic coöperative principles and philosophy require completely equal treatment of all members regardless of the size of a member's operation and his location in the area served by the Association.

A nostalgic adherence to policies and practices that may have been effective in the past will not necessarily ensure efficient future operation. On the contrary, it may handicap an association in adjusting to changed conditions. What is

needed is a bold and realistic outlook. Adoption of more practical and realistic policies would seem to call for a rather drastic change in attitude of a good many members of the Association, who cling to the idea that the P.P.C.C. is primarily and predominantly an egg-marketing association and that no policies should be considered which may lessen the relative status and influence of egg-producing members.

It is not intended to minimize the importance of the egg-shipping member to the Association. The Association was built by the patronage of such members. The value of eggs sold still constitutes more than 50 per cent of the total annual sales of eggs, feed, and supplies. Egg-shipping patrons also purchase a large, if not the major, proportion of all feeds and supplies sold annually. It would also be unrealistic and unwise to underestimate the importance of non-egg-shipping patrons. Indeed, the Association might detract from its full effectiveness if it met changing conditions by regarding the non-egg-shipping patron as a sort of "poor relation." To attain its full effectiveness and to maintain efficient use of its facilities, the Association needs the loyal support and active patronage of both egg-shipping and other members.

Many members seem to consider the Feed and Supply Department only a means whereby the Association can render additional services to its egg-supplying members. This may have been true in 1926 when the Association first undertook to handle feeds and supplies. Now that sales in the two departments are about equal, a more realistic view would be to think of the two departments as offering joint services to the members. The departments are supplementary to each other in that each makes possible a fuller utilization of some of the manpower and facilities needed by the other. They are complementary to each other in that the successful operation of one

¹³ Similar developments appear to have taken place in the market milk industry of the state. The larger proprietary milk-distributing firms have attached to themselves, by means of favorable marketing contracts, dairymen with large dairy enterprises. In contrast, most of the local dairy coöperatives have a considerable proportion of dairymen patrons with small- and medium-sized enterprises.

tends to bring patrons to the other. The availability of both services undoubtedly aids in getting new members and keeping the support of old ones.

Although the egg-merchandising and the feed and supply operations are the two main joint services available to members, each department should—as a long-run policy—be self-supporting. In other words, if the Association is to operate efficiently and effectively, neither department should subsidize the other. Every effort should be made to ensure that each department operates efficiently within the framework of conditions governing the marketing of eggs and of feed and supplies. Perhaps certain practices that would increase the efficiency of the Feed and Supply Department would not

be adaptable to the Egg Department and vice versa. On the other hand, caution is necessary in adopting policies to improve the operation of one department which may have an adverse effect upon the operation of the other.

With these broader considerations as a background, attention may now be directed more specifically to an evaluation of several of the operating problems and practices of the Association. The operating problems of the Feed and Supply Department will be discussed first, partly because some of these problems were important reasons for this study, partly because some problems of the Egg Department can best be discussed after those of the Feed and Supply Department have been presented.

Feed Operations and Policies

Feed operations

Milling operations. During the period from 1930–1953, the volume of feed handled by the Association has increased somewhat irregularly from a low of 124,700 tons in 1933 to a peak of about 326,000 in 1952 (figure 2). In 1953, however, the volume of feed dropped to about 297,000 tons—a decline of about 9 per cent from the amount handled during the previous two years.¹⁴

The total value of sales of the Feed and Supply Department increased from about \$6,900,000 in 1940 to \$34,700,000 in 1952, an increase of 403 per cent. This increase is explained by an increase

¹⁴ In 1954 the volume of feed handled declined still further to 282,000 tons, mainly because of decreased sales of dairy feed. In 1954 the milk-feed ratio was so unfavorable that dairymen greatly restricted their purchases of concentrated feeds. In 1955, however, volume of feed sold increased to 292,000 tons.

in physical volume during this period (66 per cent increase in feed tonnage), an increase in feed prices of about 250 per cent, and an increase in sales of supplies. In 1953 the total sales value of feed and supplies declined to about \$30,500,000 reflecting a decline both in physical volume and in prices of feeds sold. The decline in volume since 1952 is of particular concern to the Association because several new mills have been erected, and facilities in other mills have been expanded and modernized since the end of the war.

In table 3 is summarized the variation in costs per ton of handling and milling feed in the several mills during the month of December, 1953. These data show rather wide variations in the costs per ton of handling and milling feed in the several mills. These costs do not appear to be related directly to volume of

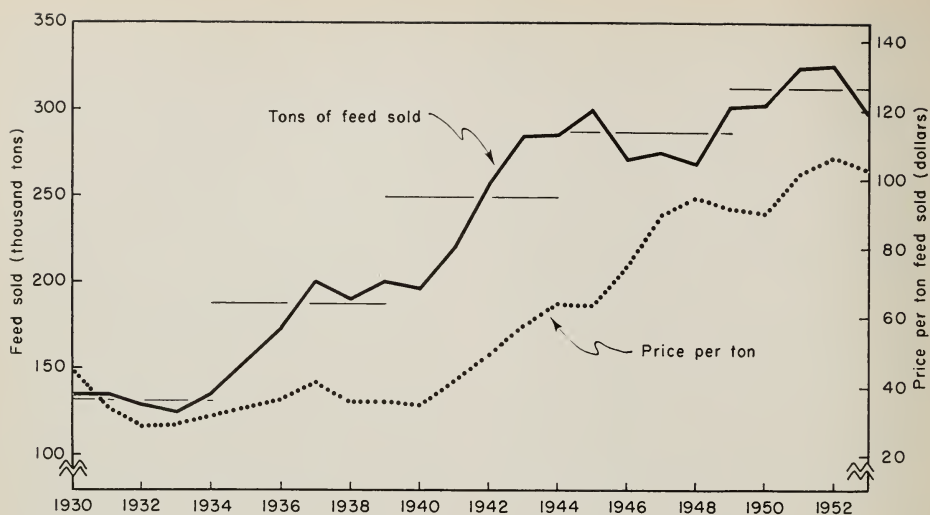


Fig. 2. Volume of feed sold annually and average price per ton—1930 to 1953.

raw materials or feed milled or to hours of operation during the month. Analysis shows that numerous factors other than volume influence operating costs (see page 21). Costs of operating the various mills are reported to be under constant study and every effort is being made to keep such costs at a minimum.

It was estimated that, exclusive of the small mill at Turlock which produces mainly feed for turkeys, the five mills at Petaluma, Yuba City, Stockton, Merced, and Salinas in 1954 had a combined annual capacity of 360,000 tons or about 25 per cent above the volume handled in

1953. Table 4 shows the capacity of the five mills on a four-week (20-day) basis, working on an 8-hour shift and a 16-hour shift, and the actual volume handled in December, 1953.

It is possible to operate a mill on a 24-hour basis for a short period of time. Such a continuous operation, however, involves many operating problems and some additional expenses. It is more normal procedure to operate mills on a 16-hour basis, which allows ample time for cleanup and for minor repairs and adjustments. In December, 1953, only the Petaluma and Merced mills operated

Table 3. Volumes and Operating Costs of Handling and/or Milling Feeds, December, 1953

Location of mill	Raw materials handled		Feed milled		Hours of operation during month	Feed milled per hour
	tons	dollars per ton	tons	dollars per ton		tons
Petaluma.....	8,866	1.19	7,161	2.21	368.0	19.5
Yuba City.....	4,384	0.87	2,351	2.30	181.0	13.0
Stockton.....	7,083	1.42	2,930	2.84	202.0	14.5
Turlock.....	332	1.06	570	2.25	117.5	4.9
Merced.....	3,497	1.04	2,652	2.58	301.0	8.8
Salinas.....	2,081	0.62	1,317	1.67	177.0	7.4

**Table 4. Capacity of Five Mills and Volume Handled,
December, 1953**

Mill	8-hour shift	16-hour shift	Volume milled
	tons	tons	tons
Petaluma.....	3,760	7,520	7,161
Yuba City.....	2,160	4,320	2,351
Stockton.....	2,240	4,480	2,930
Merced.....	1,440	2,880	2,652
Salinas.....	1,120	2,240	1,316

near full capacity on a double-shift basis; the Yuba City, Stockton, and Salinas mills handled only slightly more than the capacity on an 8-hour shift. Fixed costs per unit of feed handled would be considerably reduced if all mills could be operated on a full double-shift basis.

In order to equip mills to operate most efficiently (especially if bulk sales of feed are increased), some additional capital expenditures may be necessary. This increase in capital expenditures, however, would be more than offset by the decrease in labor and other operating costs.

Operation of branches. Of equal, if not greater, significance than in the case of the mills is the effect of volume on the costs of handling feeds in the 44-odd branch plants of the Association (exclusive of agencies). The average cost of handling and milling feed in all branches increased from \$1.73 a ton in 1949 to \$1.92 in 1950, to \$1.94 in 1951, to \$2.10 in 1952, and to \$2.28 in 1953. Costs per ton in 1953 were thus about a third higher than in 1949. Part of this increase arose out of the increase in labor and other costs since 1949. The decline in volume between 1952 and 1953 was doubtless a factor in the increase of that year.

The importance of studying branch operating costs becomes clear when attention is directed to variations in such costs per ton between branches. Although the average cost per ton for all

branches was \$2.28 in 1953, costs varied from \$1.36 at Salinas to \$3.90 at Red Bluff.

Although there appears to be some relation between unit operating costs and volume of feeds handled, it is difficult to account for costs variations between branches on the basis of volume alone. For example, in branches handling less than 3,000 tons in 1953, costs per ton varied from \$2.21 to \$3.87. Similarly, in branches handling between 3,000 and 6,000 tons in 1953, costs per ton ranged from \$1.91 to \$3.90 (see figure 3).

Economic studies in other industries indicate that the two most important factors responsible for variations in unit costs between similarly operated units are (1) volume and (2) percentage of capacity utilized. It was shown above that although the unit handling costs are lower for most of the larger branches than for the smaller ones, volume alone gives no clue to the significant variations in costs between branches having substantially similar volume. Unfortunately, the data available relative to capacity of individual branches were inadequate, and time did not permit an attempt to rate individual plants on the basis of capacity utilized. It is doubtful, moreover, whether any such comparison would have been particularly significant, especially since other factors may be responsible for the variations in costs between branches.

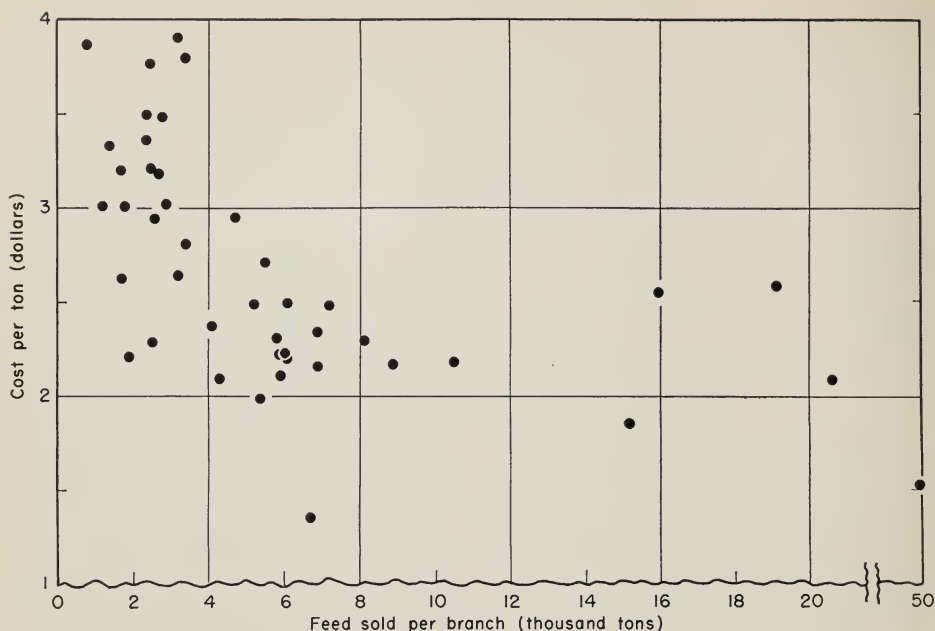


Fig. 3. Volume handled and unit costs of handling feed in branches—1953.

These include differences in salary and wage scales, the proportion of bulk feed sales, the types of feeds sold, the volume of feed sold per customer, degree of obsolescence of plant and equipment, the suitability of layout to present operations, and percentage of capacity utilized.

The volume of sale per customer appears to be of considerable significance. Most of the member-patrons served out of the Red Bluff and Concord branches make relatively small purchases at a time. On the other hand, fairly large volumes of feed per customer are sold out of the Modesto, Turlock, Merced, Stockton, and Petaluma branches, which have moderately low unit costs per ton.

There appears to be little flexibility in the operation of most of the smaller branches, the majority of which are in the high unit cost range. Most of these small branches have only one or two employees who divide their time between sales, accounting, loading, and unloading. The personnel of such branches cannot be decreased if the volume of feed

sold declines; on the other hand, the number of employees would not have to be increased if somewhat larger volumes in feed were handled.

This conclusion is supported by the data in table 5. The five branches that handled a larger volume of feed in 1953 than in 1952 had unit costs averaging 17 cents per ton less in 1953 than in 1952. On the other hand, the branches that handled less feed in 1953 than in 1952 experienced increases in costs per ton. Moreover, the increase in costs per ton was greatest for branches experiencing the largest percentage decrease in volume. These data indicate rather forcefully the adverse effect upon branch operating costs of a decrease in the volume of feed handled. By the same token, they indicate that an increase in volume would serve to reduce branch unit costs.

Volume of sales per member. An analysis made by the Accounting Department of the Association relative to the value of feed and supplies sold in

1953 to members through individual branches is summarized in table 6. These data indicate that about 62 per cent of all member-patrons accounted for only 8 per cent of the total value of feeds and supplies sold. On the other hand, about 7 per cent of the members, purchasing over \$10,000 worth of feed and supplies in 1953, accounted for about 43 per cent of all sales. In the lowest size group about 3,100 members (27.5 per cent of all members) purchased less than \$17

worth of feed and supplies a month—about 5,300, less than \$42 a month. Many patrons may make several purchases each month, each one representing only a few dollars per sale.

Considerable expense is involved in servicing each sale of feed and supplies. It takes just about as long for the branch manager or warehouseman to make a sale of 200 pounds of feed as one of 500 pounds or more. The same is true of making out invoices, posting, sending out

Table 5. Relationship between Volume of Feeds Handled per Branch and Change in Unit Costs, 1952 and 1953

Percentage change in volume between 1952 and 1953	Number of branches	Names of branches	Change in unit costs per ton
Increase:			
15-19	1	Grass Valley	Average decrease: 17 cents
10-14	1	Livermore	
5- 9	2	Oroville and Morgan Hill	
0- 4	1	Yuba City	
Decrease:			
0- 4	7	Cotati, Paradise, Modesto, Lodi, Patterson, Ripon, and San Jose	Average increase: 11 cents
5- 9	15	Petaluma, Penngrove, Santa Rosa, Sebastopol, Calistoga, Lakeport, Elk Grove, Dixon, Corning, Oakdale, Turlock, Santa Cruz, Salinas, Hollister, and Concord	Average increase: 23 cents
10-14	3	Healdsburg, Auburn, and Stockton	Average increase: 47 cents
15-19	6	St. Helena, Sacramento, Willows, Chico, Merced, and Gustine	
20-24	5	Sonoma, Napa, Ukiah, Orland, and Gilroy	Average increase: 61 cents
25 and over	3	Novato (30 per cent), Red Bluff (27 per cent), and Jamestown (63 per cent)	

Table 6. Patronage of Feed and Supply Department: 1953 (by Size Groups)

Size group	Maximum monthly purchase	Patrons			Value of feed and supplies purchased		
		Number	Per cent of total	Accumulated per cent	Estimated value	Per cent of total	Accumulated per cent
	dollars				dollars		
Under \$200.....	17	3,126	27.5	27.5	312,600	1.1	1.1
\$200-499.....	42	2,166	19.1	46.6	758,000	2.6	3.7
\$500-999.....	83	1,706	15.0	61.6	1,279,500	4.3	8.0
\$1,000-4,999.....	417	2,768	24.4	86.0	8,304,000	28.0	36.0
\$5,000-9,999.....	833	815	7.2	93.2	6,112,500	20.7	56.7
\$10,000 and over.....	...	779	6.8	100.0	12,819,200	43.3	100.0
Total.....		11,360	100.0		29,585,800	100.0	

monthly statements, and accepting payment. An estimate made in the Sacramento branch indicated that the cost of posting and sending out statements to member-patrons twice a month was above 13 cents a patron. If the patron is not prompt in settling his account, further expense is involved in sending out follow-up statements and in writing letters and making calls on seriously delinquent accounts. Several branch managers stated that in their experience members who make irregular purchases of small quantities of feed are less prompt than regular patrons in paying their bills.

The costs of posting and sending out bills by no means represent all the costs involved in handling sales to patrons. Just about as much time is involved in getting a new member, whether he will be large or small (as regards volume of patronage). Capital is tied up in all feed and supplies sold on credit. Volume discounts for larger purchases probably do not nearly compensate for the difference in costs of servicing large and small accounts. To the extent that this is true, the members purchasing large quantities of feed and supplies annually are subsidizing the smaller producer-patrons.

Bulk sales. The practice of distributing feed in bulk directly from mill to poultryman has increased rapidly in recent years. The Association began handling feeds in bulk in 1951 when 4,000 tons of bulk feed were sold. This represented only 1.22 per cent of the total quantity of feed handled that year. In 1953 the volume had risen to 23,450 tons, or 7.81 per cent. Available evidence indicates that this method of handling feeds results in substantial economies over handling feeds in sacks at the mill, as well as economies in transportation and in operations on individual poultry enterprises. Equipment such as storage tanks and conveyor belts has been developed which, when installed on medium-sized as well as large poultry enterprises, permits substantial reductions in



The alfalfa dehydrator at Vorden, above, and a second one at Ryer Island produce about 10,000 tons of dehydrated alfalfa each year.

man-hours of labor. This is of special importance in the poultry industry in which labor inputs are relatively large. Many of the large feed firms and several coöperative associations¹⁵ in the Pacific Coast states have promoted aggressively the sale of feed in bulk. One of the methods used to promote such sales is to finance the purchase and installation of the necessary equipment on individual enterprises.

In view of these industry-wide developments, it would appear that the Association might well have promoted bulk sales of feed to members more aggressively. Discussions with the management of the Association indicate that there were three main reasons for its reluctance to promote bulk sales of feed. First, all mills are not equipped to handle feed in bulk. Second, this method of handling feeds would not be suitable for the many thousands of member-patrons with small poultry and livestock enterprises. Third,

an expansion of bulk sales of feed would further reduce the volume of feed moving through branches and hence would increase the unit costs of handling feed in such branches.

These considerations weighed heavily in the decision of the Board of Directors¹⁶ to price bulk feeds on the basis of sacked feed less quantity and sacking discounts. To the extent that the Association's pricing of bulk feeds results in a price that is much above the actual cost of milling and delivery in bulk, it is "holding an umbrella" over its competitors. The latter are given a margin of protection which permits them to make special "deals," especially with producers with large poultry and dairy enterprises. Thus, a more realistic pricing policy in regard to sales of bulk feeds seems necessary if the Association is to hold or improve its position in the feed business.

In spite of numerous difficulties, it appears clear that the Association should not delay any longer equipping all its mills to handle bulk feed. It is realized,

¹⁵ Information obtained from the Poultrymen's Coöperative Association of Southern California indicates that in 1953 that Association distributed approximately 60 per cent of all feed sold in bulk.

¹⁶ Minutes of the Board meeting, December 2, 1952.

of course, that a material expansion in sales of feed in bulk will complicate the problem of economical operation of many of the branch warehouses. The solution of this problem will require careful study. Even now the volume of feed handled in many branches is so low that unit costs are high. Consideration might well be given to closing down some of the branches, especially in the northern part of the Sacramento Valley (e.g., at Red Bluff, Orland, and Corning). In many instances it may be possible (as is done now) to operate some of the branches for only two or three days a week. In this way a single warehouse crew could service two or three branches. Consideration might also be given to establishing more "agency" relationships in areas where membership is more scattered. Although such "agency" operations have not been very satisfactory in the past, the Association might well explore the possibility of using the local distribution facilities of other farmers' organizations. Another possibility would be to provide members in such areas detailed price lists and order blanks for feed and supplies to be shipped once or twice a month from a few strategically located branch warehouses.

Even if the Association can expand the total volume of feed milled and can effect economies in handling its smaller accounts, the transition to bulk selling of feeds will require careful study of ways to change branch operations to meet the needs of members not equipped to handle feed in bulk.¹⁷

Pricing policy on feeds. Over the course of years, the Association has developed an elaborate and detailed accounting procedure by which it can determine with reasonable accuracy the

costs to the Association of raw materials and manufacturing operations for each type of feed in each of its mills. The customary pricing procedure is to add to the cost of raw materials in each feed the direct milling costs for that feed, plus a pro rata of administrative and branch operating costs per ton. To the figure so obtained is added a customary markup of 8 per cent—a sort of margin of safety. This then becomes the base price per ton which applies at branches where mills are located and a number of nearby branches. Differentials are then added to the base price to cover differential transportation and handling costs on mixed feeds, grains, etc., from the mills to the more distant branches with some equalization factors on transportation and branch selling expense.

In addition, member-patrons at each branch are allowed quantity discounts or service savings for quantity purchases in order to encourage members to make larger purchases at a time. In 1954 members purchasing less than 500 pounds of feed at a time paid the base price. For purchases of from 500 to 3,999 pounds, members received a discount of 10 cents per hundredweight, and for purchases of 4,000 pounds or more, a discount of 15 cents a hundredweight. These differentials are based on a careful study made several years ago of differential costs involved in handling transactions of different volumes.

The base prices for mixed feeds, grains, and other supplies may be changed from time to time to reflect changes in basic ingredients, to meet competitive conditions, or to reduce inventory. The fact that the Association has been able to build up and maintain a high volume of sales indicates that its pricing policy results in prices that compare favorably with those charged currently by competitors. In fact, there is evidence that, in most areas served by the Association, it is in a position of price leadership and that some competi-

¹⁷ In 1954 and 1955 the Association pushed more vigorously the sale of feed in bulk. In 1954 some 34,000 tons of feed or 12.4 per cent of all feeds were sold in bulk; in 1955 there were 64,000 tons or 22.4 per cent. All feed mills have been equipped to handle bulk feed.

tors tend to base their prices in each section on the posted prices of the Association.

Members are able to purchase reliable feeds carefully adapted to varying needs¹⁸ at prices generally competitive and, in addition, have the benefit of an annual patronage refund based on savings in the operations of the Feed and Supply Department. These patronage refunds vary somewhat for the different classes of feeds and supplies handled. In 1953 members received a patronage refund of 9.5 per cent on all poultry feeds purchased, 7 per cent on dairy feeds, 3 per cent on grains, 4.5 per cent on petroleum products, and 12 per cent on farm supplies. Since the end of the war, patronage refunds on poultry feeds have varied from about 5 per cent in 1946 to 12 per cent in 1947 and 1951. The average patronage refund on poultry feeds for the years 1946–1953 was about 6 to 9 per cent.

The Association has always placed great stress in its membership relations on the size of its annual patronage refund. For some of its larger producer-patrons, the refund may run into several thousands of dollars. A large part of the annual patronage refund is derived from the 8 per cent customary markup on feeds and supplies. Milling, administrative, and branch operating costs may also run below the markups placed on these operations. Finally, exceptionally favorable purchases of raw materials may contribute to the annual overage (proceeds of sales less costs) on feeds and supplies.

The question may well be raised as to the wisdom of the 8 per cent markup and the emphasis on a substantial annual patronage refund. To the extent that competitors relate their selling prices to the published or posted prices of the

Association, the 8 per cent markup gives them substantial protection in their operations. They are thus afforded considerable leeway in extending price discounts in order to obtain customers. It has been suggested that two advantages would arise if the Association reduced its markup, say, from 8 to 5 per cent. First, members would receive price benefits immediately rather than in one sum at the end of the year. Second, and perhaps more important, competitors would lose that much "protection" of their margin.¹⁹ The disadvantage of operating on a lower percentage markup would be a lower margin of safety and smaller annual patronage refunds. Thus, part of the benefits brought by the Association would disappear as narrower margins brought lower feed prices to members and nonmembers alike.

This is an important matter of policy which merits careful study by the Board of Directors. The prospects are that the population of California will continue to grow in the decade ahead—a situation that will lend encouragement to the poultry and dairy industry of the state. If milling facilities in central California (both coöperative and private) are now more than adequate to meet growth needs, it would appear unwise for existing milling concerns (among which the Association is a leader) to continue to follow pricing policies that would encourage an expansion of milling facilities.

Although no attempt was made in this study to analyze in detail the feed-milling and merchandising operations of the Association, one defect in the milling operations was clearly evident. The minutes of meetings of the Board of Directors

¹⁸ The Association maintains a quality control laboratory which carefully tests all mixed feeds in regard to basic nutritional ingredients. The laboratory also constantly analyzes proposed new feeds and mixes.

¹⁹ The President of the Grange League Federation of New York (a coöperative association selling feeds and supplies to members) has stated that the Grange League Federation has always followed a policy of operating on the lowest possible margin. He claimed that this policy has discouraged the establishment of additional feed mills in the New England states.

and of the Feed Committee contain frequent reference to the large number of feeds carried. A retail price list issued on August 6, 1954, made reference to nearly 50 separate poultry feeds (mashes and pellets) and to nearly 25 turkey feeds. Some of these are medicated and have to be carried to meet needs of individual enterprises that have disease problems. Many of the mixes were based on special formulae which certain producers considered more effective than the standard formula recommended by the Feed and Supply Department.

Sales of some of the feeds constituted only a very small percentage of total feeds sold.²⁰ Turnover in branches of some of the special feeds was slow. Most persons on the Feed Committee in the Feed and Supply Department and in the quality control laboratory who were interviewed deprecated the fact that the Association handled such a large number of feeds. The preparation and handling of such a long list of feeds undoubtedly result in higher milling and branch costs than would be the case if the number of feeds could be reduced. It would appear to be highly desirable for the Association to re-evaluate carefully its policies regarding feeds with a view to reducing the number of separate feeds milled and carried.

Credit sales of feed

Credit in the feed trade. It is quite likely true that the Association's rather tight credit policy has tended to restrict its volume of sales of feeds and supplies. In competitive selling of feed and supplies, credit is often a deciding factor.

²⁰ For example, of some 30 nonmedicated poultry feed mashes and pellets sold in 1953 (pellets are usually sold at 10 cents more a bag than mashes), 10 feeds (5 mashes plus 5 pellets) accounted for nearly 80 per cent of all nonmedicated poultry feeds sold. In the case of medicated poultry feeds, sales of 3 out of 25 medicated feeds carried accounted for 92 per cent of all medicated feeds. A similar situation prevailed for turkey and dairy feeds.

The more liberal the credit policy, the easier it is to make sales and to expand volume. A liberal credit policy, however, involves risks and disadvantages as well as advantages.

The extension of credit involves "credit terms" and the "credit line." The "credit term" is the length of time allowed a customer for payment after a bill is rendered. The "credit line" is the amount of credit that will be extended to an individual buyer. These two terms are interrelated. The more or less uniform credit term is usually applied to all buyers who are entitled to credit under the rules in effect. In a business firm which makes sales fairly regularly (as in the case of poultry and dairy feeds), the credit line commonly varies with the size of the enterprise as evidenced by volume of purchases made by each buyer per week or per month, due consideration being given to payment record.

In the poultry and dairy feed business, buyers of feed may be grouped into several classes according to frequency of purchases and settlement of accounts and the magnitude of risks involved.

Egg producers who sell their eggs through a coöperative association or to a local feed dealer who extends credit are generally regarded as the best credit risks. Their credit term is also short. They make weekly deliveries of eggs, and the weekly egg check normally covers the weekly feed bill. In a coöperative association, there is usually additional security for feed sales in the annual patronage refunds and in equities in revolving funds.

Dairymen are also generally regarded as good credit risks, although their credit term may be longer than that for egg producers. Dairymen are usually paid for milk deliveries every 15 days or once a month. They generally settle for their feed accounts once a month.

Broiler raisers are usually considered high credit risks. Their credit term is usually three to four months. Broiler

prices tend to fluctuate rather widely from week to week and from month to month. In addition to the hazards of price declines, there is the ever-present threat that disease may wipe out a whole flock before it is ready for market. Many broiler raisers are "big operators." The output for any individual broiler raiser may be intermittent. An operator may buy 10,000 day-old chicks, feed them for about 10 weeks, and then sell the entire lot at one time. If the operation proves to be unprofitable, the feed dealer may be unable to collect unless the broiler raiser has other resources which may be attached. In order to protect his investment, the feed dealer may undertake to extend credit for another "raise." Thus, the credit term for feed supplied to broiler raisers may vary anywhere from 2½ to 5 months.

Turkey producers are also considered to be high credit risks, and their credit term is usually even longer than that for broiler raisers. It takes several months to bring a turkey poult to a marketable stage. Although scientific advances have greatly reduced the hazard of heavy disease losses, these have not been eliminated. Furthermore, there is the ever-present danger of price declines at the time turkeys are ready for the market.

Other livestock producers. Feed is also sold to cattlemen, sheepmen, hog raisers, and even rabbit producers, whose incomes are usually intermittent, sometimes coming only once a year. Such producers may also be classed as high credit risks, and their credit term may be for several months.

From information gathered from branch managers, feed dealers, and local bank managers, it is apparently a common trade practice of independent feed dealers to extend liberal credit to livestock producers—the credit terms ranging from one to several months depending upon the nature of the livestock operation. Independent feed dealers

finance such credit extension in various ways and require a variety of collateral credit. Some dealers borrow commodity capital at the banks and extend credit to selected patrons. In the case of broiler and turkey raisers, dealers usually take chattel mortgages on the birds and other movable assets. In some cases dealers merely guarantee, with appropriate restrictions, their customers' accounts at a local bank which makes loans to producers. In all such cases, the producer's operations are closely supervised by fieldmen employed by the feed dealers. It is usual for feed dealers to charge higher prices for feed sold on credit than for feed sold for cash in order to cover the additional costs of credit extension, including risks involved and supervision of operations. Some feed dealers charge up to \$1.00 a ton additional on credit sales of feed, the funds so obtained being placed in a "reserve for credit losses."

The credit policy of the Association. The credit term of the Poultry Producers of Central California is stated to be 15 days, although there is no very clear definition as to just what the 15 days imply. Branch managers are expected to send out bills to members on the 15th and 30th of each month for feed purchased during the preceding 15 days. The member then has 15 days in which to pay before his account becomes overdue. In other words, the member is expected to settle his account before the next billing date. It should be pointed out that under such an arrangement it is possible for a producer, by planning his purchases, to have a credit term of nearly 30 days. He may make his purchases, say, on the 1st of the month. Although he will be billed on the 15th, he may delay payment until a day or two before the end of the month.

It should be pointed out that the 15-day credit term was established many years ago with the needs of the egg producer in mind. Egg-shipping members are paid for eggs delivered on a weekly

basis and thus experience no difficulty in keeping their accounts current. In fact, many of them settle for their feed bills on a weekly or even cash basis. The 15-day credit term is also suitable for the dairyman who is paid twice a month for milk deliveries, but it does not meet the credit requirements of dairymen who are paid only once a month. Experience in the various branches has shown that most dairymen prefer to settle their accounts once a month. Some of them are resentful at being billed twice a month. Nor does the 15-day term meet the credit needs of other groups (for example, broiler raisers and turkeymen) unless they have funds of their own or can borrow elsewhere.

Over the course of years, branch managers have modified the Association's over-all credit policy to some extent in order to meet conditions in the areas served by the given branches. In 1954 the manager of the Credit Department of the Association sent a questionnaire to all branch managers, asking for information on billing and payment practices actually followed. Replies were obtained from about 45 branch managers, although some of them did not answer all questions.

The first question dealt with the number of bills or statements for feed and supplies sent out to patrons. The tabulated results from all branches indicated that about 5,600 statements were sent out on the 15th and about 6,440 on the 30th.²¹ In 33 branches, approximately the same number of statements was sent on the 15th of the month as on the 30th. In 8 branches, however, considerably more statements were sent out on the 30th of the month. This was particularly true of branches located in important dairy sections.

²¹ These figures are for 45 branches only. If data were available from all the branches, the number of statements sent out each 15 days would come closer to 7,500.

The second question dealt with the number of patrons who paid their bills regularly within 15 days after statements were rendered and the number who paid on a monthly or longer basis. On an average for all branches, 44 per cent of the patrons paid regularly each 15 days, whereas 56 per cent paid on a monthly or longer basis. Only 9 branches indicated that 70 per cent or more bills were paid within 15 days. On the other hand, 17 branches indicated that 70 per cent or more of all accounts were paid on a monthly or longer basis.

It should be pointed out that in many of the smaller branches the managers perform all the work of posting sales invoices and sending out statements. Such work takes several hours each month. If it could be reduced by sending out monthly statements, the branch managers would be free for other work (for example, membership relations) which is of considerable importance to the Association (page 49).

Although it is a widespread practice in the poultry and dairy feed industry for dealers and mills to finance the production operations of poultrymen and turkey producers through sales of feed on credit and by other devices, the Association has not undertaken such financing largely because of the risk of credit losses and the additional costs of underwriting and supervising credit. The management of the Association points out that the great bulk of its feeds and supplies is sold to egg producers and dairymen who are able to pay their bills regularly out of sales of eggs and milk. An expansion of sales of feed and supplies on credit to broiler and turkey raisers might, in case of adverse business conditions, result in losses which their egg-producing and dairy patrons would have to bear—unless, of course, some method could be developed to handle the credit business separately.

The Board of Directors has maintained the position that the basic functions of

the Association are to market eggs and supply feed to the members and that other agencies are better suited to underwrite the financing of production operations. Producers (mainly turkey and broiler raisers) are encouraged to arrange for production financing through these other agencies and then to avail themselves of the feed and other services of the Association. Members of the Association have access to the following sources of credit:

(a) The Association has an arrangement with several San Francisco banks to lend to turkey and broiler patrons who will assign their patronage refunds as security. Each loan would be separate; risks would not be pooled. In addition, a number of San Francisco banks have agreed to finance members of the Association on the security of Revolving Fund Certificates bearing interest at the rate of 5 per cent.

(b) A number of members and employees of the Association have organized the Poultry Producers Federal Credit Union, which can make loans to participating members for a variety of purposes. Any member of the Association may join the Credit Union and may borrow funds on the basis of an acceptable credit statement. A producer who holds membership in both organizations may borrow money up to his credit line to pay feed bills as they fall due or to purchase needed supplies. The Credit Union makes the necessary arrangements with each borrower for the repayment of the loan.

(c) Many members are in a position to borrow needed operating capital from production-credit associations. Some production-credit associations, however, appear to be averse to financing broiler and turkey raisers for a number of reasons. In the first place, these farmer-owned-and-operated associations are required by law to charge a uniform rate of interest to all farmer borrowers. They

are thus unwilling to make loans to farmers engaged in a somewhat risky and speculative activity, such as raising broilers and turkeys. The production-credit associations, however, frequently lend to dairymen and to egg-producing poultrymen who are in a sound financial position.

The arrangements described above have been of considerable help to a relatively small number of members of the Association. At the same time, it must be recognized that the Association's relatively restrictive credit policy has prevented it from participating to any great extent in the growing feed and supply business with broiler and turkey raisers that has developed in the past decade.

Hindsight, which is better than foresight, suggests that if the Association had provided more liberal but adequately guarded credit facilities for broiler and turkey raisers after the end of World War II, it could have materially increased its sales of feed and supplies. Prices of poultry products (especially meats) tended to rise until 1953. Under such circumstances, credit losses would have been reduced to a minimum—unless rash credit policies had been followed. The year 1954, however, was a most difficult time for the poultry and dairy industries. The feed-price ratios were very unfavorable. The year 1955 also promised to be a "difficult" year in which the poultry industry would have to adjust to a lower level of production. In such periods, some poultrymen are usually forced out of business. Credit becomes harder to get, and many feed dealers are likely to incur substantial credit losses.

Under the circumstances, it would have seemed inadvisable for the Association to embark on a more liberal credit or financing policy in 1954, even though both milling and sales branches could well have handled a larger volume of business. Meanwhile, it was not inappropriate for the management to continue to

study possible new credit devices and arrangements.²²

Cash discounts. A special aspect of the credit problem is that of cash discounts. Some members have suggested that the Association would be able to increase its volume of sales of feed and supplies and to reduce handling costs if it allowed a discount for cash. It is claimed that many feed dealers allow cash discounts. Apparently, however, the word "cash" has a number of meanings. The manager of a small supply association stated that his association allowed members a 2 per cent discount for cash. Further inquiry, however, brought out the fact that "cash" meant payment within 15 days after a statement was rendered. Another manager (of an alfalfa hay association in California) stated that "cash customers" were billed immediately after sale and that payment within 30 days was considered "cash." "That," said he, "is as near 'cash' as you can get." Another poultry feed association in California gives members a "cash" discount for payment within 10 days of delivery. The usual practice in this association is for the deliveryman to pick up the check for the previous week's sale of feed at the time he makes the current delivery. Still another association allows members a cash discount of 10 cents a bag of feed. In this case, however, "cash" meant full payment at the time of sale or delivery.

Proponents of a discount for payment in full at the time of delivery point out that extension of credit involves additional costs in making sales. Although it is difficult to determine the exact differences in costs between cash and credit sales, these differences would be related to credit losses, extra record keeping,

²² Among these would be the plan formulated by the former manager of the Association's Credit Department, for the establishment of an agricultural credit corporation among broiler and/or turkey raisers to be operated for the benefit of members of the Association.

costs of billing, making collections, and servicing delinquent accounts, and interest on money invested in receivables. Such costs would probably vary over time and would also depend upon methods of operation and skill in extending credit.

It is difficult not only to evaluate the merits of a "discount for cash on delivery" but also to determine how much the discount should be in order to reflect with reasonable accuracy the differential cost of cash and credit business. Consideration needs also to be given to prevailing trade practices and attitudes of members. Many large buyers at times phone in their orders for feed and are often not on their ranches when feed is delivered. The question would arise whether in such a case the buyer who sent in his check two or three days after feed was delivered should be regarded as having made a cash purchase. In many ways the introduction of a strict cash discount on delivery would raise more problems than it would solve. It is, nevertheless, definite that prompt settlement of accounts would result in cost reductions which, though small per account, would amount to considerable proportions on a full year's operation.²³

Handling of members' accounts.

Considerable expense is involved in making sales of feed and supplies in small quantities and of small total value. These costs involve the time spent by a branch manager in making the sale, posting, billing members twice a month, and servicing delinquent or overdue accounts.

It is recommended that the Association consider a plan under which members would settle accounts on the basis

²³ For example, if 7,500 statements were sent out to members twice a month (or 15,000 a month), the number of statements rendered annually would amount to $15,000 \times 12$, or 180,000. If it cost 6 cents to render each statement (a conservative estimate), the annual cost for sending out statements would amount to about \$10,800.

of invoices rather than bi-monthly statements. Such a plan is already used, apparently with satisfactory results, by two large feed-selling coöperatives on the Pacific Coast.

The system is also used extensively by many business corporations and by some public institutions. The method involves making out a sales invoice for each member at the time a sale is made. Members receive a copy of each invoice—another copy is retained in the office. At the end of each day or two the office copies, numbered consecutively, are totaled for control purposes and sorted into dockets, one for each member. Members pay for feed and supplies either cash on delivery or once a week or 10 days. Appropriate notation of payments is made on invoices, which are then withdrawn from the docket. Members are billed only once a month and then only if their accounts are overdue. If some such system were adopted, the number of statements to be mailed out to members would undoubtedly be reduced to only a small proportion of those now mailed out each month. In the larger branches, the time saved would permit some reduction of personnel; in the smaller branches, it would free some of the manager's time for membership or other more important work. It is suggested that such a system of payment by invoice be tried out experimentally in one large and one small branch so that weaknesses may be discovered and corrected.

In order to reduce still further the expense involved in handling a multiplicity of small accounts, it is recommended that all members whose purchases of feeds and supplies do not average a certain minimum amount a month (say \$25.00) be placed on a strictly c.o.d. basis. This change could be made whether or not the invoice system was introduced. It would, however, dovetail very well into that system. In order to take some of the sting out of requiring a fairly large number

of members to pay cash for purchases, a moderate discount might be granted for cash payment or payment within 7 or 10 days. Such a discount would, of course, also apply to members whose purchases exceed the minimum. It would, moreover, be in addition to the volume discounts already allowed to members. (Incidentally, two coöperative associations in the western states at present grant members a discount for cash.) At least part of the resulting reduced net value of sales (especially in the case of the purchasers of small monthly quantities of feed and supplies) would be offset by the decreased costs of handling small accounts. If the cash discount is also allowed to members whose purchases greatly exceed the minimum, the annual net overage or net profit will undoubtedly be reduced somewhat. This may necessitate some decrease in the percentage of patronage refunds made annually to members on their feed and supply purchases. This, in and of itself, may not be undesirable, as it is a moot point whether it is more advantageous to sell members feed and supplies currently at lower price or sell at a higher current price and pay a substantial patronage refund once a year. A lower cash price paid by members currently would place the Association in a stronger competitive position.

Feed and supply merchandising policies of other coöperatives

As an aid in evaluating the credit and related policies of the Association, it was decided to obtain information on the feed and supply merchandising policies of other coöperatives in western states. A three-page questionnaire (see Appendix B) was sent to 11 feed-selling coöperatives in this region. Eight associations returned completed questionnaires, and in most instances, the managers also wrote in more detail about the over-all problems of merchandising feed and supplies. This is an indication that the prob-

Table 7. Membership and Feed and Supply Business of Nine Coöperatives in Western States: 1953

Association (symbol or name)	Number of members	Number of feed and supply patrons	All feed sold (including grains)	Mixed feeds sold	Value of feed sold	Value of supplies sold	Value of feed and supplies sold	Value of feed and supplies sold per patron
Tons				dollars				
A.....	1,950	1,950	63,900	54,400	5,894,000	248,000	6,142,000	3,150
B.....	450	450	29,300	17,900	2,706,000	101,000	2,807,000	6,240
C.....	2,300	2,300	155,300	134,500	13,332,000	408,000	13,740,000	5,970
D.....	5,000	4,000	65,900	56,000	6,097,000	312,000	6,409,000	1,600
E.....	1,340	1,340	32,400	20,800	3,339,000	256,000	3,595,000	2,680
F.....	38,710	31,000	234,900	176,500	20,394,000	10,063,000	30,457,000	982
G.....	6,000	3,500	75,000	45,000	6,300,000	820,000	7,120,000	2,030
H.....	2,200	2,200	18,500	11,900	1,696,000	395,000	2,091,000	950
P. P. C. C.....	11,400	9,000	296,800	197,400	27,056,000	2,652,000	29,708,000	3,300

Table 8. Questions on Cash Versus Credit Sales, Frequency of Billing, and Discount Policies

Question	Association (symbol or name)								
	A	B	C	D	E	F	G	H	P.P.C.C.
Percentage of sales in 1953 for cash?	30	80	Notsegregated	50	Largely cash	20	80	25	Nominal
How frequently are members billed for feed and supplies sold on credit?	Monthly	Monthly	Pay on invoice; otherwise, monthly	Monthly	Monthly	Pay on invoice; otherwise, monthly	Weekly	90 per cent monthly	Twice a month

What percentage of patrons pay:

Weekly or cash? Twice a month? Monthly? Longer than monthly?	80 10 5 5	80 18 2	60 34 5 1	58 2 35 5	80 20	20 Not segregated	80 5 15	75 3 22	15 75 10
Do members receive discounts for cash?	Yes	Yes	Yes	No	No	No	No	Yes	No
Do members receive a discount for payment within a specified period? If so, at what rate?	Yes 10 cents per cwt. if paid within 10 days	Yes 10 cents per cwt. if paid in 10 days, 6 per cent on build- ing ma- terials	Yes \$1.00 ton on feed if paid with- in 10 days	No	No	No	No	Yes \$1.00 on feeds, 5 per cent on sup- plies if paid in 10 days	No
Do you charge patrons on overdue accounts? If so, at what rates?	Yes 6 to 9 per cent	No	Yes 6 per cent	Yes $\frac{1}{2}$ of 1 per cent per month	Yes 6 to 10 per cent per month	Yes $\frac{1}{2}$ of 1 per cent per month	No	Yes $\frac{1}{2}$ of 1 per cent per month	Varies
Do patrons receive a discount on volume purchases?	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes

lems and difficulties encountered by the Association are not unique to the central California area.

Of the eight associations, three handled feed and supplies only. All three, with a combined membership of 4,000 livestock producers, are located in central California in the same general area served by the Poultry Producers of Central California. A considerable proportion of the egg-producing members of these three associations were also members of the P.P.C.C. which marketed their eggs. The other five associations handled eggs on behalf of member-patrons and provided them with feeds and supplies. Two of them were located in southern California (Los Angeles and San Diego) and one each in the states of Oregon, Washington, and Utah. The last three associations operate on a state-wide basis.

Table 7 presents data for the eight associations relative to membership and the volume of feed and supplies sold in 1953. Data for the P.P.C.C. are included for comparative purposes. These nine associations sold to member-patrons about \$102,000,000 worth of feed and supplies in 1953. Two of the nine associations reported sales of less than \$1,000 of feed and supplies per patron; two sold about \$6,000 worth per patron.

Cash versus credit sales. Associations were asked to indicate what proportion of total sales made in 1953 were for cash or credit. Cash sales were found to be as low as 20 per cent in one case, as high as 80 per cent in another (table 8). Further information supplied, however, indicated that most of them regarded as "cash" all payments made within 10 days of purchase. In the case of only one association was "cash" regarded as payment on delivery.

Four of the associations indicated that members received a discount for "cash" payments; five allowed no discount for "cash" payment. Here again, the four associations that allowed a discount for

"cash" regarded "cash" as payment within 10 days of delivery. Only one association allowed an extra discount of 2 per cent for payment on delivery. Two of the four associations granted a discount of 10 cents per hundredweight on mixed feeds if paid within 10 days. The other two associations allowed \$1.00 a ton on all feeds. Two of the associations also allowed discounts on "cash" purchases of supplies.

All but two of the associations also made a charge on overdue accounts. An account was regarded as overdue if payment was not made within 30 days after a bill was rendered. The customary charge on overdue accounts was $\frac{1}{2}$ of 1 per cent per month, or 6 per cent per annum. Two associations also provided for charges in excess of 6 per cent per annum in special cases—usually at the discretion of the Board of Directors.

Most of the associations indicated that more than 75 per cent of their members regularly paid their accounts either on a weekly or twice-a-month basis. In all associations, however, varying proportions of members (from 5 to 35 per cent) regularly paid bills on a monthly basis. Only a negligible proportion of members took longer than one month in settling their accounts.

Billing of members. Five of the nine associations regularly billed their members only once a month. One association billed members weekly, and another (the P.P.C.C.) twice a month. In this connection, it is significant to note that two associations had instituted the system of payment by invoice (table 8). Under this method, invoices for sales are placed in a member's docket each time a sale is made. Members periodically pay to the association an amount equal to the invoices issued. If a member fails to redeem an invoice within 30 days, he is billed; within another 30 days, his account becomes delinquent. This system, which has been adopted by many large

business corporations, greatly reduces the book work and cost of billing customers.

Bad-debt experience. All but one of the associations maintained a reserve for bad debts. This varied from one association to another with variations in the total volume of sales and the average annual balances in accounts receivable. The eight reporting associations placed losses from bad debts from sales to members during 1953 at from "none" to " $\frac{1}{6}$ of 1 per cent." For a "longer period," varying from 6 to 20 years, the losses varied from "none" to " $\frac{1}{10}$ of 1 per cent."

The practice of servicing delinquent accounts (members who are overdue in payments) varied somewhat between associations. One association indicated that it had no problem, as members settled their accounts promptly. Most associations used a letter or the telephone to contact members who were overdue in payments. Normally, letters and telephone calls were sufficient. In some of the associations, the local branch managers or fieldmen contacted members who were badly in arrears in order to work out a mutually satisfactory solution. In two associations, members whose accounts were overdue for more than 30 days were placed on a strictly cash basis until arrears had been paid up. Only one association utilized the services of collection agencies for collection of seriously overdue accounts.

In practically all the associations, the credit departments and the Boards of Directors reviewed the accounts receivable at frequent intervals. Apparently every effort was made to treat each delinquent account on its merits and wherever possible to work out a solution to the problem which was satisfactory to both the association and the member. Recourse to use of collection agencies or to court action was seldom taken and then only in extreme cases.

This is understandable because legal action against a patron is very bad from the standpoint of member relations. Furthermore, most of the associations operated in such a way that few members were given extended credit.

Credit by classes of members. All the associations indicated that although most sales of feeds and supplies were made to egg producers and dairymen, sales were also made to other livestock producers, such as turkey raisers, hog producers, and rabbit breeders. Seven of the nine associations reported that sales of feeds and supplies to broiler and turkey raisers were made only if such producers were able to comply with the same credit conditions met by egg producers and dairymen. This would mean that broiler and turkey raisers who need financing must obtain such aid through established lending institutions.

Two of the larger associations did grant extended credit to broiler and turkey raisers but only after careful investigation by the credit department. It was customary for members receiving extended seasonal credit (two to eight months) to give the association chattel mortgages or such other security as the credit departments deemed necessary. The operations of such members were carefully supervised by fieldmen and branch managers while the extended credit was in force.

Most of the associations indicated no marked difference between the several classes of producers in regard to bad-debt losses. Only one association stated that most bad-debt losses were incurred with broiler and fryer raisers but that even such losses were negligible.

Credit affects competitive position. All the associations, including the two that undertook to finance carefully selected and supervised broiler and turkey raisers, admitted that their rather strict credit policies placed them at a competitive disadvantage with inde-

pendent feed manufacturers and dealers and that they would be able to increase their feed business if they adopted more liberal credit policies. There was general agreement, however, that in spite of the lure of additional volume it would be unwise to relax their existing credit policies. Several of the associations indicated that their membership included the more experienced and financially stable poultrymen, dairymen, and other livestock producers in the areas they served. An extension of credit to inexperienced and poorly financed poultrymen and livestock producers would, they felt, result in higher bad-debt losses and an increase in overhead costs because accounts would need more careful supervision. Most of the writers felt that under the conditions existing in 1954 and probably in prospect for 1955, it would be most unwise for their associations to attempt to gain more feed volume by making sales involving greater risk.

Fieldmen. Six of the eight associations (excluding the P.P.C.C.) employed one or more fieldmen whose primary activity was to assist members in production problems, to enroll new members, and to promote public and member relations. Most of such fieldmen were ex-

perienced in the poultry and feed business. In several of the associations the fieldmen sometimes participated in servicing delinquent accounts, but this was not their primary function. The knowledge of fieldmen in regard to the operations of individual member-patrons was, however, valuable to the credit department and to the branch managers in decisions as to the credit term and credit lines.

Summary. This survey of credit policies of coöperative associations in the western states, which sell feed and supplies to members, indicates that, with two exceptions, the credit policies of most of the associations were very similar to those of the Poultry Producers of Central California. Even the two associations that did undertake a rather more extensive financing of broiler (or fryer) and turkey raisers did so only after careful analysis and only if members receiving seasonal credit were able to provide adequate security. Without exception, managers were opposed to a relaxation of credit policies as a primary means of expanding feed business. Most managers indicated that 1954 would be most inappropriate for the introduction of a more liberal credit policy.

The Egg Department

The Poultry Producers of Central California operates in what is essentially a single, overlapping producing and consuming area in regard to eggs. For over a decade practically all eggs delivered by members have been sold through retail and other outlets in the Association's producing territory.²⁴ The major northern California outlet is the San Francisco

Bay area (San Francisco, Oakland, and Hayward) with three rapidly growing consuming areas (Sacramento, Stockton, and San Jose) not far away.

Receipts and sales of eggs

The volume of eggs received from members increased from about 627,000 cases in 1924 to record highs of 1,829,-

²⁴ The Association still occasionally ships carloads of eggs out of California. These are usually smaller sizes of eggs, which may tempo-

rarily be in such abundant supply in relation to other sizes as to have an unsettling effect on the market structure for all sizes of eggs.

000 cases in 1954 and 1,845,000 in 1955. The data for the years 1947–1954, inclusive, are pictured in figure 4.

An important change in the seasonal pattern of egg production has occurred in central California in recent years. In 1947 weekly receipts of eggs varied from about 22 per cent above the yearly average in April to some 15 per cent below the average in January (see broken line in figure 5.) In 1953, however, the variation above or below the average was less than 10 per cent with the exception of December when weekly receipts were 29 per cent above the average. The substantial increase in that month was probably the beginning of heavier production

which continued throughout 1954. With this change in the seasonal pattern of egg production in central California, the Association has greatly reduced its egg-storage operations. In 1947 nearly 60,000 cases of eggs received during the months of flush production were placed in storage. In 1953 only about 32 cases were stored, and none were stored in 1954 in spite of record receipts from members.²⁵

Available data suggest that the Association handles about 50 per cent of all eggs sold in the San Francisco Bay cities. This clearly puts the Association in a position of price leadership. An

²⁵ *Nulaid News*, 33(1):13.

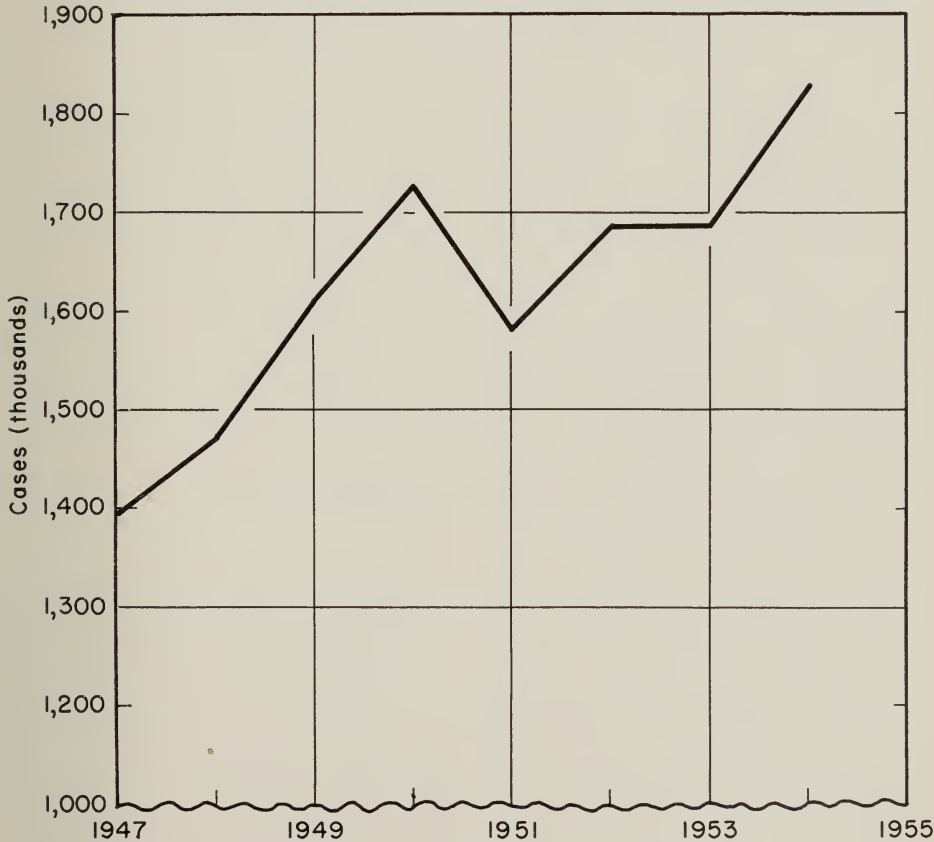


Fig. 4. Cases of eggs received from members—1947 to 1954.

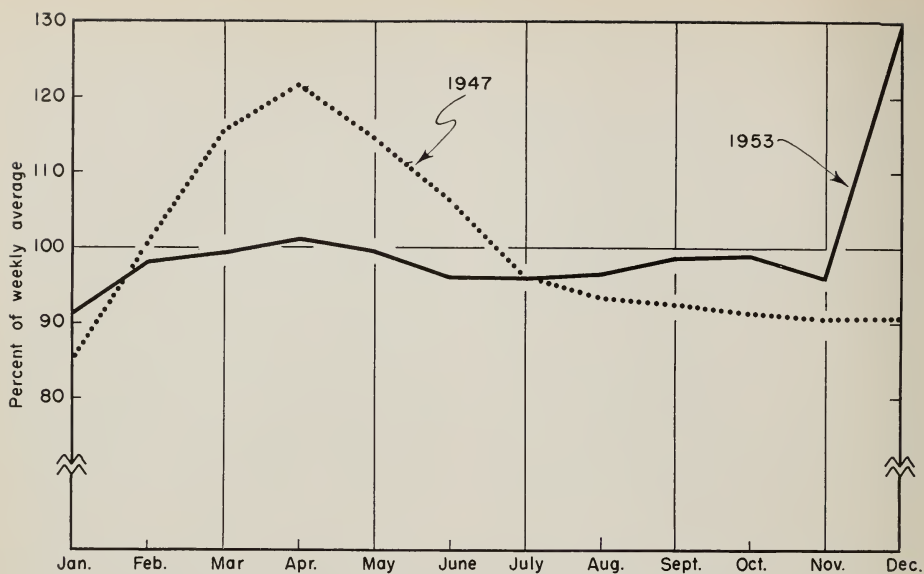


Fig. 5. Variation in weekly receipts of eggs—1947 and 1953.
(Average weekly receipts for year = 100.)

earlier study has suggested that because of this price leadership the Association's operations tend to eliminate minor price fluctuations.²⁰ The Association has the responsibility of being "right" in its pricing policy. It is obliged to market all the eggs its members deliver at the best prices available. But such prices must be in line with those in other markets because independent dealers, who ship in most of the out-of-state eggs used in the area, would quickly increase such imports if prices made it profitable to do so.

The Association appears to have maintained its position of marketing leadership in central California by means of a well-coordinated and sustained merchandising policy and by strict adherence to high grading standards. The Association's Nulaid brand has an excellent reputation in the trade, especially among chain stores and the larger supermarkets which demand a steady flow of high-quality eggs. The Association has been a leader in introducing new and improved methods of handling eggs to

maintain quality. During the past several years, it has induced most of its egg shippers to discontinue the practice of washing eggs. Members are encouraged to adopt production techniques which greatly reduce the proportion of dirty eggs and to clean "light dirties" by "dry buffing" methods rather than by washing. Members are also encouraged to keep eggs under refrigeration until they are collected or delivered to branch houses.

Regional distribution of sale of eggs

Total sales of eggs increased from 1,492,000 cases in 1948 to 1,701,000 cases in 1953, an increase of about 14 per cent. Table 9 shows the changes in sales by the various branches between 1948 and 1953.

In 1953 a larger proportion of the eggs collected in country stations was distributed in nearby cities, leaving smaller proportions for shipment to and sale in the two large cities in central California. In 1948 about 61 per cent of all eggs handled by the Association were sold out of the San Francisco and Oakland dis-

²⁰ California Agr. Exp. Sta. Bul. 656, p. 39-40.

tributing centers (excluding general office sales); in 1953, only about 55 per cent. It is stated that prices obtained for eggs in the outlying distributing centers are on a par with those in San Francisco. The Association has a uniform egg-pricing policy at all its branches.

The fact that the Association operates over a comparatively large area and has 13 egg-grading and -packing plants conveniently located in producing areas appears to give its operations a considerable degree of flexibility. There are frequent interplant movements of eggs—first, to expedite grading and packing and second, to adjust to local supply-demand relations.

At times supplies of eggs “pile up” in a given plant, either because of excep-

tionally heavy receipts or because packing operations are slowed down by temporary labor shortage (for example, during a local influenza epidemic). As delay in processing eggs will result in quality deterioration, part of the eggs received at a local grading and packing plant may be moved to another plant for processing. The following tabulation based on operations for the week ending February 20, 1954, illustrates the point:

	Sacramento plant dozen	Hayward plant dozen
Eggs received from within district . . .	143,165	63,831
Eggs received from outside district . .	6,620	10,977
Total eggs handled . . .	149,785	74,808

Table 9. Sales of Eggs by Branches, 1948 and 1953

Branch or outlet	Total sales		Percentage change, from 1948 to 1953	Percentage of total	
	1948	1953		1948	1953
	cases			per cent	
Petaluma	58,800	76,200	+ 29.6	3.9	4.5
Santa Rosa	13,300	19,700	+ 48.1	0.9	1.2
Napa	59,500	62,000	+ 4.2	4.0	3.6
Sacramento	181,300	244,300	+ 34.7	12.1	14.3
Marysville-Yuba City	19,300	43,000	+122.8	1.3	2.5
Orland	17,000	20,500	+ 20.6	1.2	1.2
Stockton	43,900	45,300	+ 3.2	2.9	2.7
Modesto	22,200	21,900	- 1.4	1.5	1.3
Turlock, Gustine, and Patterson	4,700	3,600	- 23.4	0.3	0.2
Merced	16,100	21,800	+ 35.4	1.1	1.3
Santa Cruz	28,900	25,100	- 13.2	1.9	1.5
Salinas	16,400	17,100	+ 4.3	1.1	1.0
San Jose	73,600	75,900	+ 3.1	4.9	4.5
Hayward	25,700	94,000	+265.8	1.7	5.5
San Francisco	514,600	468,300	- 9.0	34.5	27.5
Oakland	342,900	328,600	- 4.2	23.0	19.3
Los Angeles*	2,600			0.2	
General Office	51,800	134,000	+158.7	3.5	7.9
Total	1,492,600	1,701,300	+ 14.0	100.0	100.0

* Data for 1953 not available.

Then there are frequent movements of packaged eggs between markets to meet variations in local market demand for eggs of different grades and sizes. For example, a local branch may contract to deliver a considerable volume of a certain size and grade to a local chain of supermarkets. If the local branch does not have enough eggs of that size and grade on hand, it will fill its contract by requesting additional supplies from adjacent branches. The tabulation in table 10 of receipts and shipments of packaged eggs for the Sacramento branch during the week ending February 19, 1954, illustrates such more or less continuous interbranch movements. In practically every instance the eggs shipped out were of different sizes than those shipped in.

It is the policy of the Association to standardize packs and grades between plants and over a period of time. This is necessary if the Association is to obtain and hold the patronage of the large chain stores and supermarkets, which are founded on the availability of a large volume of uniformly graded products that

can be sold under a single brand name. Such standardization can be provided readily through an organization like the P.P.C., which handles a large proportion of the eggs produced in an overlapping producing and consuming area.

Size of egg receipts from patrons

As in the Feed Department, the patronage of egg-shipping members of the Association varies widely (table 11). These data indicate that almost one-third of all egg-producing members ship less than five cases of eggs a week and account for about 5 per cent of all eggs received weekly. About 55 per cent of all members shipping less than 10 cases a week account for less than 16 per cent of total receipts. At the other extreme, about 4 per cent of the members shipping over 50 cases a week account for about 22 per cent of all egg receipts.

In recognition of the fact that a certain minimum expense is incurred in handling the clerical and other work in connection with individual accounts, the Association in 1949 introduced a general

Table 10. Receipts and Shipments of Packaged Eggs for the Sacramento Branch (Week Ending February 19, 1954)

Date	Sacramento sent to:	Dozen eggs	Sacramento received from:	Dozen eggs
February 12.....			Modesto Stockton	750 3,000
February 15.....	San Francisco Yuba City	4,800 900	Modesto Stockton	4,890 3,000
February 16.....	Oakland	9,270	Modesto	4,260
February 17.....	Oakland	9,450	Stockton Oakland	7,050 4,950
February 18.....	Oakland	7,350	Stockton	1,620
February 19.....	San Francisco Oakland	150 9,636		

**Table 11. Weekly Receipt of Eggs from Patrons by
Size of Shipment Groups***

Size groups	Shippers			Total cases received		
Cases shipped	Number	Per cent of total	Accumulat- ed per cent	Number	Per cent of total	Accumulat- ed per cent
Under 2.....	311	12.48	12.48	309	0.87	0.87
2 and under 5.....	506	20.30	32.78	1,551	4.39	5.26
5 and under 10.....	541	21.72	54.50	3,705	10.49	15.75
10 and under 50.....	1,037	41.62	96.12	21,880	61.95	77.70
50 and under 100.....	77	3.08	99.20	4,925	13.94	91.64
Over 100.....	20	0.80	100.00	2,941	8.36	100.00
Total.....	2,492	100.00		35,311	100.00	

* Based on receipts during a typical week.

service charge of 50 cents per account. The funds so accumulated were placed in a special fund and prorated back to members annually on the basis of volume of eggs delivered. The decision to impose a service charge was based upon cost estimates made by the accounting branch in 1948 and 1949. Since then the general price level has risen by over 10 per cent, and average salaries and wages of employees to an even greater extent. There would thus appear to be some justification for increasing the service charge. It should be pointed out, furthermore, that the calculations upon which the service charge was based were confined to direct costs at branches and in the general accounting office. A number of administrative expenses are incurred for each member regardless of the size of egg shipments. Such expenses per case of eggs would, of course, be inversely related to the volume of eggs delivered per patron. To the extent that these expenses are not adequately reflected in the service charge per account, the large-scale members are subsidizing the small-scale members. Such a situation tends to favor competitors (independent egg buyers) who solicit the business of the large-scale member-patrons.

Pickup time

Another indication of the differential cost of dealing with members delivering different quantities of eggs is afforded by an analysis of the time spent by truck drivers in collecting eggs from the ranches of members. Such an analysis was made by the Traffic Department a few years ago. Although this survey was made primarily to permit reorganization of routes, the data nevertheless threw light on the time spent in picking up

**Table 12. Time and Wage
Costs Involved in Egg
Collections**

Number of cases picked up	Minutes per case	Truck-drivers' wages per case at 4 cents per minute
		cents
2.....	2.9	11.6
3.....	1.9	7.6
4.....	1.7	6.8
5.....	1.3	5.2
6.....	1.2	4.8
7-12.....	1.0	4.0
Over 12.....	0.8	3.2

Table 13. Grading Percentage by Size of Delivery*

Receipts for week	Grading percentage					
	Large AA	Large A	Large B	Medium A	Small and commercial	Total
dozens	per cent					
1-149.....	23.61	36.71	7.29	17.51	14.88	100.00
150-299.....	29.22	31.09	6.23	19.37	14.09	100.00
300-599.....	34.27	25.16	5.32	21.28	13.97	100.00
600-1,499.....	38.86	20.38	4.90	20.94	14.92	100.00
1,500-2,999.....	38.94	16.84	5.71	21.12	17.39	100.00
3,000 and over.....	40.38	17.28	5.43	19.45	17.46	100.00

* Based on deliveries during the week ending May 8, 1954.

cases of eggs per stop. The time per stop started when the pickup truck left the highway to drive onto a ranch and ended when the truck returned to the highway. These data are tabulated in table 12.

It will be seen that it takes over three times as long per case to pick up 2 cases at a stop as it does to pick up 12 or more. Estimating the wages of a truck driver at 4 cents a minute, the cost per case for wages alone would vary from 3.2 cents

for a pickup of 12 or more cases to 11.6 cents for a pickup of only 2 cases.²⁷ This

²⁷ Members are required to deliver all eggs produced "in minimum deliveries of not less than thirty (30) dozen per week." Members whose volume of egg production may temporarily fall below the minimum would cease making deliveries for the time being. A flock as small as 100 hens should produce such a minimum during much of the year. These are usually the "farm flocks" which often involve quality problems.

Eggs are picked up at the ranch and delivered to retail outlets by a fleet of refrigerated delivery trucks.



does not, of course, include the cost of operating trucks or the wages of the drivers while on the main highways.

A small service charge is made by the Association for picking up small quantities of eggs at the farm. In view of the foregoing information, it would appear desirable for the Association to reconsider its policy with regard to the pickup service charge.

Quality related to size of delivery

Another study made in 1954 by the Accounting Department of the Association throws still more light on the relationship between members making deliveries of varying volumes of eggs. The data in this study are summarized in table 13.

In view of the higher costs involved in handling small weekly deliveries of eggs and the generally lower quality of such eggs, the Board of Directors of the Association might well consider oper-

ating two or more pools related to size of deliveries. It may be possible by such means to allocate to each pool the differential costs of handling. Other alternatives would be to raise the minimum weekly delivery quota or to raise the minimum volume of patronage required of a member above the \$200 (for feed and eggs) in force in 1953.²⁸

²⁸ In line with the factual information presented above, the Board of Directors of the Association, at its monthly meeting held on November 4, 1954, resolved to raise the minimum required patronage (for eggs delivered and/or feed purchased) from \$200 to \$500 a year. This action will undoubtedly result in some reduction of membership during 1955 and perhaps also during subsequent years. This reduction in membership, however, would result in only a small reduction in volume of eggs handled and volume of feed sold. The small loss of patronage should be more than offset by a reduction in operating costs by the elimination of some high cost accounts. The net operating position of both the Feed and Supply and the Egg Departments is thus likely to improve rather than to deteriorate.

Membership Problems

In the preceding sections, it was indicated that an increase in sales of feed and supplies should tend to reduce costs of milling and of operating the branches. Attention was also drawn to a number of ways by which the Association could reduce the costs of handling feeds and at the same time improve its competitive position in the feed business. Among other suggestions was one to place members who purchase less than a stated minimum volume of feed supplies monthly on a strictly cash basis. It was not considered wise at the time of this study to attempt to expand the volume of feed and supplies by any drastic relaxation of credit policy, particularly if this were to involve extended credit on

sales to broiler (fryer) and turkey raisers.

These restrictions would appear to place the Association on the horns of a dilemma. Actually, however, there is a solution. The Association needs additional active membership. Information obtained during the course of this survey indicates that there are considerable numbers of commercial poultry and livestock producers in central California who are not members of the Association but who might be induced to join. Two factors or policies of the Association have in the past tended to limit its membership. These are the membership egg-marketing agreement and the lack of effective field-service work.

The egg-marketing agreement

As was stated earlier, the Association was organized originally as an egg-marketing association. In order to carry out effective egg marketing, it was deemed necessary to ensure a continuous supply of eggs by requiring all members to sign an egg-marketing agreement or contract.²⁰ Under this agreement each member is required to deliver all eggs produced by him (except eggs for family use and eggs sold to hatcheries) whenever he has enough to make minimum deliveries of not less than 30 dozen a week. The contract is binding for a period of 15 years but provides that a member may end the agreement by written notice sent to the Association within a specified period in any year.

The Association has regarded this agreement as the very foundation upon which it operates. In 1926 it undertook to handle feeds and supplies as additional services to members and later also sold feeds to livestock producers other than egg producers. However, it required any non-egg producers to sign the egg-marketing agreement as a condition of membership even though they had no intention of producing eggs. This requirement has kept out of the Association that considerable group of egg producers who happen to have outlets for their eggs which they, in their particular circumstances, prefer to the marketing service offered by the Association. Yet many of these would quite certainly patronize the Feed and Supply Department if permitted to do so. In the meantime, the egg-shipping members are free to shop around for feeds and supplies, often using the Association's quotations to get lower prices elsewhere.

We are convinced that patrons of the Egg Department would benefit if the Association eliminated the present require-

ment that all members sign the marketing agreement. One way to do this would be to amend the bylaws to provide for two classes of members. In the first class would be all members who wish to ship eggs to the Association. These would be required to sign the present egg-marketing agreement in order to provide a dependable supply of eggs on which the Association may base its merchandising program. The second class would include turkey and broiler raisers, dairymen, producers of other livestock, and egg producers who do not wish to take advantage of the Association's egg-marketing service. This second class of members, along with the first, would be the patrons of the Feed and Supply Department.

In order to discourage egg-shipping members in class one from withdrawing from the egg-marketing agreement to become class two members, the amended bylaws may well provide that any member who has withdrawn from the egg-marketing agreement may not re-establish himself as an egg-shipping member for a period of two years from the date of withdrawal. In order to re-establish himself, such a member would then have to sign the egg-marketing agreement. No eggs would be accepted from persons who have not signed such agreement.

In support of the suggested changes, we may point out that increased commercialization of egg production has put more emphasis on the supply-buying aspect of egg production. Moreover, much of the overhead cost of administration and many of the costs of operating branches are shared by the Feed and Supply Department and the Egg Department. Any increase in the operations of the Feed and Supply Department which leads to reduced costs or to improvements in needed services will benefit egg producers not only as feed and supply buyers but as egg sellers as well.

The fear expressed by some that many egg producers would withdraw assumes

²⁰ This is a common procedure among agricultural coöperative associations processing and merchandising products on behalf of members.

that these producers stay with the Association only because they wish to buy its feeds. This fear does not seem well founded in view of the fact that a good many egg-shipping members now patronize other feed suppliers, including four smaller coöperative associations.

It is, of course, not possible to foresee to what extent present egg shippers would decide to try independent egg buyers for a year or two if they could still buy feed from the Association. Some may do so, particularly those who object to the Association's clean-egg program. A few have withdrawn each year to accept outside offers (some apparently to their regret). The present contract requirement actually "throws these producers into the laps of competing feed sellers"—private or coöperative. If they could continue to patronize the Association's feed and supply facilities, the periodic contacts might easily lead to a renewal of the egg-marketing agreement.

How well egg producers will support the Egg Department will depend largely on whether the Association's egg-marketing services continue to meet or beat those of its competitors. The fact that the Nulaid brand of eggs regularly sells at a premium in the markets of central California would attest to the Department's effectiveness in merchandising eggs. It is entirely possible that although the Association is performing an efficient merchandising service, its grading policies may be so severe and its administrative and handling costs in receiving and packaging branches may be so high that members actually receive little price benefit as compared with nonmembers.

The Association has for years been in a position of leadership in regard to quality standards of production. Much of its educational work among members has been directed to improvement in methods of production and handling of eggs on the ranch. Because of the adverse effects of washing on the interior

quality of eggs, the Association has for many years conducted an educational program against the washing of eggs. A "Clean Egg Program" was started officially in 1951, when a monetary award for unwashed eggs was introduced. More recently it was announced that producers who wash eggs will no longer be accepted as new members. Most other egg buyers have not as yet adopted a similar policy with regard to egg washing. At the time of this study (summer of 1954), well over 90 per cent of all eggs received by the Association were unwashed. In the beginning this new quality program met with some opposition and criticism. Now that members have become accustomed to the new policy, opposition seems largely to have disappeared. Few members have withdrawn from the Association because of the "unwashed"-egg policy. Apparently the great majority of members who are in the commercial egg-producing business fully agree with and support the Association's quality programs.

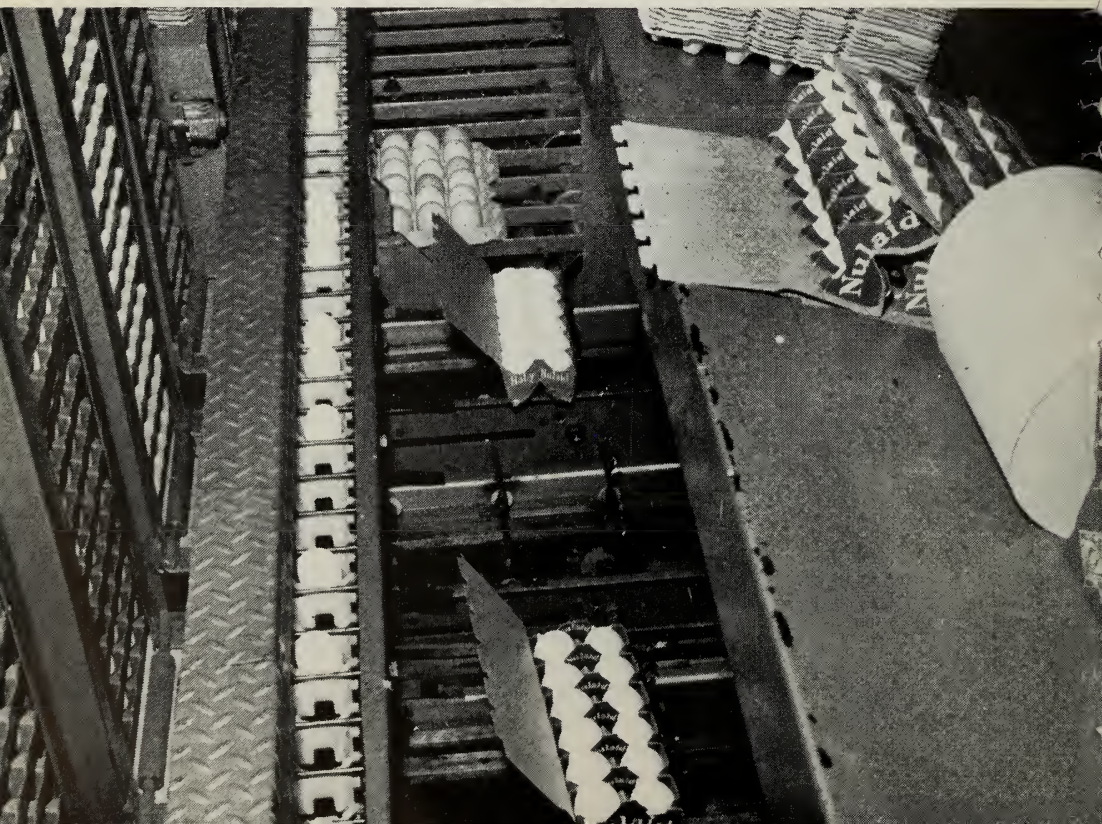
It is, therefore, necessary to rely upon certain "prima facie" evidence of the effectiveness of the Association's egg-handling operations. In the first place, numerous independent egg buyers appear to base their prices to producers on the returns currently being made by the Association to its members. This would seem to indicate that independent buyers must at least meet the Association's prices to stay in business.

In the second place, a large proportion of the members of the Association have patronized its Egg Department for many years. It is extremely doubtful whether such members would have continued their loyal support for any length of time if they were convinced that they could get a better "deal" outside the Association. Although some producers have withdrawn from the Association because of the lure of better "deals" from independent buyers, many of these have later rejoined.



Eggs are candled before passing to the electro-mechanical equipment, which automatically tabulates, weighs, and packs them in cartons.

After the mechanical brain has recorded the weight and interior grade, the eggs are packaged. As the conveyor belt moves along, eggs are dropped from the pocket into the correct carton. When a carton has been filled, it is automatically brought forward and replaced with another.



In the third place, perhaps the most convincing argument that the Association is doing an effective job of merchandising eggs is the fact that some of its most loyal egg-shipping members are feed-buying members of feed and supply associations in their respective districts.

The conclusion, therefore, appears to be justified that the Egg Department of the Poultry Producers of Central California is functioning with reasonable efficiency, that a modification of the marketing-agreement policy to permit some egg producers to purchase feed and supplies without being required to ship their eggs would not cause any considerable loss of present egg-shipping members, and that some who now have more desirable egg outlets would then buy feed and supplies of the Association.

Membership relations and field service

Unlike many other coöperative associations, the Poultry Producers of Central California has not established a membership or field-service department. To a considerable extent, the Association has relied on its well-established reputation for the recruitment of new members. Contacts with members have been maintained through a weekly newsletter and a monthly house organ, *Nulaid News*. Branch managers provide additional contacts with members mostly when members visit a branch to deliver eggs or purchase feeds. There are also occasional visits to individual members by directors and office personnel, and, of course, the periodic district meetings provide numerous contacts.

A comparatively small number of the original members of the Association are still active. Most of the present members have been with the Association for less than 20 years. Each year several hundred members drop out for a variety of reasons to be replaced by several hundred new ones. These new members cannot be expected to have the same spirit

of loyalty to the Association as those who have been members continuously for 10 years or more.

In the meantime, old as well as new members are being contacted continuously by representatives of independent feed dealers and by egg buyers. Even more important is the fact that up to 1954 the Association had no adequate, regular, and organized means to contact persons who had recently become poultry producers and dairymen in the various areas. Such new poultrymen and dairymen are often solicited by independent dealers even before they actually get into production.

Information obtained from members of the Association and from branch managers during this survey indicated rather clearly that many producers (members and nonmembers alike) had a very imperfect understanding of the operations of the Association and of the advantages of its services not only to member-patrons but also to the poultry and livestock industries. Misunderstandings frequently arose among members in regard to the handling of their products, or feeds or accounts. Means of correcting such misunderstandings appeared to be inadequate. Too many livestock producers in the area seemed to regard the Association as "just another feed agency," rather than as an organization owned and operated by them for their benefit.

Such a situation may prove very disadvantageous to the Association if competition, already very keen, becomes even keener in the years ahead. The Association can ill afford to lose any of its present membership to competitors—especially if such members have large poultry or dairy enterprises. Equally important, however, is the fact that the Association should aim at obtaining a constant stream of new members to replace older ones who may retire or sell their poultry enterprises. It is not enough for the Association to rely upon

its past reputation for service and its other inadequate means of contact as a means of maintaining or expanding membership. It must adopt a more positive and effective program of membership relations and expansion.

In recognition of this need, the Association in 1953 assigned to one of its Head Office personnel the task of working with and through branch managers in a survey of members and non-members in the areas served by the various branches. As far as possible, personal contacts were made with poultrymen, dairymen, and other livestock producers in each area. Much useful information was obtained from or about each person contacted in regard to size of operations, the source of feed purchases, the sales outlet for products, etc. This survey seemed to bear out the fact that there was still a considerable untapped reservoir of potential members. Branch managers have also been urged to devote some time each month to field contracts with producers in their areas.

This is undoubtedly an important step in the right direction. It is considered, however, that in view of the importance of building up membership morale and gaining the support of new members, more effective membership activities are necessary. In many areas the local managers are fully occupied with servicing members at the branch and with supervising egg collection and the sale of feeds and supplies. They have little spare time to devote to regular field work among members and nonmembers. This is particularly true in the smaller branches and where two branches are operated by a single manager. In addition, while the managers of most of the branches are undoubtedly capable and loyal employees of the Association, most branch managers do not have the personality and training necessary for effective field-service work.

It is strongly recommended that the Association appoint two or more field representatives, each to serve a rather extensive territory. Five or six field representatives at most would probably be adequate to service the whole region served by the Association. Such field representatives should be carefully selected and trained. The nature of their activities should be somewhat similar to that of county farm advisors or extension agents. They should have an adequate knowledge of the techniques of poultry and livestock production, including an acquaintance with feeds and feeding, poultry and livestock diseases, etc. They should also be thoroughly familiar with the nature of organization and the operating practices and policies of the Association. They cannot be effective salesmen for the Association and its services unless they have an intimate knowledge of its objectives, operations, and policies and have a favorable attitude toward the coöperative way of doing business. Above all, such field representatives should be able to get along with people, especially with farmers and other groups living in rural areas.

Important as the establishment of a membership-relations or field-service department may be, the development of such work should be approached with some caution. Great care should be exercised in the selection of personnel and in the detailed planning of the scope and nature of the work of field-service representatives. It would seem wise for the Association to appoint one or two men, with what appear to be the necessary qualifications, to service areas of the territory that most urgently need such work. This could be regarded as an experimental trial. At the end of a year or two, the Board of Directors could review and reassess the effectiveness of the work already done and the need for expanding it.

Personnel Relations

Although this study did not include a detailed analysis of personnel relations, a few aspects deserve attention because of their over-all relation to the long-term efficiency of the Association. It is taken for granted that the top-level personnel (general manager and departmental managers) are performing efficiently the responsible tasks assigned to them. At no stage in the study did there appear to be anything that would cause question in this respect.

There did appear to be some question, however, as to the capability and effectiveness of a few branch managers. During the first six months of 1954, practically every branch manager was contacted. Nearly all of them were requested to furnish information regarding the operations of their branches, including accounting practices, member relations, and problems and relations involving the Head Office in San Francisco. The impression was gained that the majority of the branch managers were loyal and capable employees. On the other hand, it was apparent that some were men of limited ability and vision. A goal of increased efficiency would seem to call for a conscious effort to raise the level of ability and training as replacements are made.

Numerous persons acquainted with the agricultural coöperative movement in the United States have indicated from time to time that coöperative associations have not developed an effective program for the recruitment and training of persons who may one day be suitable for senior executive positions. The senior executive personnel in many of these associations, after many years of service, are approaching retirement age in increasing numbers. In all too

many instances no provision has been made for the training of younger men to fill the senior positions. There was evidence of a somewhat similar situation in the Poultry Producers of Central California. It is highly desirable that such young men, preferably with a university education,³⁰ start "at the bottom" and obtain during their first few years some training in all the major departments and subdepartments. In this way they should acquire a well-rounded knowledge of the various operations of the Association. Their progress and ability should be analyzed carefully at stated intervals so that at a later stage men with particular talents may be directed into fields of work for which they show greatest aptitude.

A few branch managers felt that they were too isolated from the Head Office and from the top-level administration of the Association. Visits from departmental managers were infrequent; visits by branch managers to the Head Office were equally infrequent. Some of these branch managers felt it difficult to regard themselves as an integral part of a large organization. If there is substance to such complaints and criticism, the Board of Directors and top management should

³⁰ The suggestion has been made that the poultry coöperatives of the western states establish one or more scholarships for students at agricultural colleges. The training of such students could be so organized that, when they graduate, they will have a reasonably advanced knowledge of poultry (or livestock) production, feeds and feeding, as well as a working acquaintance with the economics and business principles of a livestock coöperative association. Similar specialized scholarships could well be established by other groups of coöperative associations. It should be pointed out in this connection that many large business corporations in the United States have for years supported scholarships of this nature.

consider remedial measures. Effective personnel relations are important to a smoothly operating organization.

Suggestions from some of the employees in the Head Office were somewhat similar.³¹ It was stated that employees in one department or section had little knowledge of other departments or sections and of how their particular work fitted into the over-all plan of the Association. Experience in large business firms has demonstrated that employees work more effectively if they know how their particular work dovetails into that of other sections. The management has been aware of this defect in its internal organization for some time. In 1954 it decided to prepare an office manual setting forth the functions and responsibilities of each department and section. It is suggested that in addition periodic meetings by departments and sections be held at which employees may be briefed regarding changes in policy and procedure. Employees should also be encouraged to make suggestions for improvement in procedures.

Finally, it is recommended that the Association establish an Economics Department or Section to undertake eco-

³¹ It should be stressed that none of the personnel made a special effort to register complaints and criticisms. All employees contacted were merely asked to make any suggestions they saw fit that might contribute to more effective organization and operation.

nomics analysis of the operation of the Association and of the economic environment in which it operates. In this connection, it should be pointed out that much of the accounting and other data used in this study were already available in the records of the Association or were obtained with little delay. The data merely required further analysis for economic purposes. A competent economist employed by the Association could maintain running records of sales and prices of feeds, of branch-operating practices and costs, and of general market conditions. Such an official could also undertake specific economic analyses at the request of the Board of Directors or the management.

Information available from coöperatives in other parts of California indicates that very few associations, even those with a considerable volume of business, have seen the necessity so far for establishing a branch or section to undertake economic analyses. This is in marked contrast to what is done in many large business corporations. In these days of rapid economic and technological change, constant evaluation of operational and marketing methods by competently trained personnel would enable many coöperative associations to anticipate and adjust to changing conditions. This should result in an improvement of the services rendered by an association on behalf of its members.

Some Financial Problems

An analysis of the annual operating statements and balance sheets indicates that by usual business standards the Association is in excellent financial condition. The Association, which means its members, owns outright all physical facilities. Reserves for depreciation,

inventory decline, and bad debts appear to be adequate. Accounts receivable are in a healthy condition. Monies contributed by members to the Revolving Egg and Feed Capital Funds are revolved normally in two or three years.

Two aspects of the financial policy of

the Association, however, merit reconsideration by the Board of Directors. These are (1) the General Capital Fund and (2) the period of revolution of the revolving funds.

Revolving fund plan

The revolving finance plan as set up in 1923 looked like an ideal plan for financing a coöperative association. The needed capital was built up by withholding one cent per dozen from the proceeds of each member's egg deliveries. As evidence of his contributions, each member was given Advance Fund Certificates covering the amount of his contribution during the past quarter. These at first bore 6 per cent interest and more recently 5 per cent. The certificates were to be redeemed periodically as the continued withholdings built the fund beyond the required amounts.

Thus, each member contributed capital in proportion to his use of the Association's facilities. As the plan continued, his interest in the accumulated capital continually approached this "proportion to use" ideal as he increased or decreased his patronage.

When the Feed Department was established in 1926, a somewhat similar plan was developed for financing it. In this case, patronage dividends on feed sales were to be withheld until the Feed Capital Fund reached a stated amount. Thereafter, each new patronage dividend would be used to repay the oldest outstanding contributions to the fund as in the Egg Fund.

Certificate purchase plan

It soon became evident that some producers were under pressure for ready cash to pay feed and other bills. Competing feed dealers were finding various ways to use the certificates as collateral when selling feed on credit. Perhaps even more important, they frequently pointed out to such financially pressed members

that private dealers do not ask farmers to finance the feed business.

In 1928, the Association arranged to purchase up to \$20,000 worth of such certificates from members who needed cash and to resell these to investors. In 1930, arrangements were made to sell the certificates to its subsidiary, Producers Company, Ltd. The latter shortly developed a plan for issuing "Investment Certificates" for sale to investors. There were secured by Revolving Fund Certificates which the Company had purchased from farmers.³² At first the Investment Certificates were sold to investors generally, but the demand for them among members was such that sale was later restricted to members or employees.

In 1953 it was decided to suspend operations of Producers Company, Ltd., and soon thereafter the Company was in process of liquidation. To replace this Company's financing operations, the members voted to establish a General Capital Fund within the Poultry Producers of Central California to which members could contribute directly by purchasing General Capital Fund Certificates" for sale to investors. These were to be used by the Association to purchase Egg and Feed Capital Fund Certificates from members who needed ready cash to finance egg- and feed-storage operations, and to meet other legitimate needs. It was anticipated that the existence of such a General Capital Fund would reduce, though not preclude, the borrowing of short-term capital from banks and other lending institutions. Members subscribing to the General Capital Fund Certificates were to receive interest of not less than 3 per cent per annum and not more than 6 per cent per annum, as determined from time to time by the

³² For a fuller description of the plan and its operation, see Erdman, H. E., "Shifting the Financing Burden Among Members of Coöperatives," *American Cooperation*, 1946 (Washington: American Institute of Cooperation), pp.

Board of Directors—the interest paid to be regarded as an operating expense for the Association.

So popular was the General Capital Fund that by the end of 1953 about \$3,451,000 had been subscribed, and it was found necessary to limit, temporarily at least, further contributions. As of August 31, 1954, the Fund stood at \$3,423,000. It is important to note, however, that this amount had been subscribed by only 873 members, or about 7.5 per cent of the total membership of around 11,600. Even among these 873 subscribers, there was a wide variation in individual contributions to the Fund (table 14.) About 185 members, or 20 per cent of all subscribers, contributed less than \$1,000 each and together accounted for only 2.5 per cent of the total amount subscribed as of August 31, 1954. On the other hand, 260 members, or 29.7 per cent of all subscribers, contributed together 64.9 per cent of the total amount subscribed. These data would indicate that a small proportion of the total membership regarded the Gen-

eral Capital Fund as an excellent investment opportunity.

Laudable as may be the desire to be independent of borrowing from banks, it should be pointed out that unless the capital subscribed can be utilized fully and continuously, members who are patronizing the egg and feed services are being called upon to pay interest on unused capital. Furthermore, a business concern in a good financial condition is usually able to borrow money to meet short-term operating capital at very low rates of interest—lower than that paid by the Association on General Capital Fund Certificates.

An analysis of the balance sheet of the Association as of January 2, 1954, indicates that current assets amounted to \$11,331,000 and current liabilities to \$3,317,000, a ratio of about 3.4 to 1. A ratio of like proportions was maintained during the first eight months of the year but was reduced somewhat by year's end. (Cash assets alone were approximately equal to total current liabilities.) Normally, for a business concern of good

Table 14. Distribution of Holdings of Certificates in the General Capital Fund as of August 31, 1954

Range of holdings	Subscribers			Volume of holdings		
	Number	Per cent of total	Accumulated per cent	Amount	Per cent of total	Accumulated per cent
				dollars		
Less than \$500.....	88	10.0	10.0	23,800	0.8	0.8
\$500-999.....	87	10.0	20.0	57,375	1.7	2.5
\$1,000-1,499.....	122	14.0	34.0	152,500	4.4	6.9
\$1,500-1,999.....	40	4.6	38.6	70,000	2.0	8.9
\$2,000-2,999.....	136	15.6	54.2	340,000	9.9	18.8
\$3,000-3,999.....	73	8.4	62.6	255,500	7.5	26.3
\$4,000-4,999.....	67	7.7	70.3	301,500	8.8	35.1
\$5,000-9,999.....	174	19.9	90.2	1,305,000	38.1	73.2
Over \$10,000.....	86	9.8	100.0	917,495	26.8	100.0
Totals.....	873	100.0		3,423,170	100.0	

financial standing, a ratio of 2:1 of current assets to current liabilities would be regarded as adequate. It appears that during 1954 the Association maintained a considerable unused cash balance in the commercial banks. Such cash balances earned no interest and yet members utilizing the services of the Association were indirectly paying interest at 5 per cent on the balance in the General Capital Fund.

Several factors seemed to have contributed to the conditions described above. The year 1953 was a very favorable year for the poultry industry. As a result, many members had ready cash (much of it from patronage refunds on eggs delivered and feed purchased) which they were eager to invest. At any rate, investment in the General Capital Fund greatly exceeded expectations. On the other hand, because 1953 had been a good year, fewer members found it necessary to sell their Feed and Egg Revolving Fund Certificates. In addition, the increased uniformity in seasonal production of eggs made it unnecessary for the Association to undertake extensive egg-storage operations. Finally, inventories of feed were reduced because the Association did not find it advisable to purchase and store large quantities of feed over and above current needs.

Whatever the reasons may have been, the Association found itself during much of 1954 with large capital funds inadequately utilized. As a part of its long-term policy of service to members, the Association should undoubtedly continue to stand ready to purchase Egg and Feed Revolving Fund Certificates from members in need of ready cash. It would seem, however, that the General Capital Fund should be limited to an amount adequate for this purpose only. It is questionable whether it is good financial strategy to attempt to finance operating capital and commodity capital out of such a permanent fund. The cost to patrons would be reduced if short-term

capital needs were borrowed as needed from commercial banks or other lending institutions.

It is recommended that the Board of Directors reconsider its policy with regard to the General Capital Fund, and, if feasible, take appropriate measures to reduce it more nearly to cover needs for the purchase of Egg and Feed Revolving Fund Certificates as these are offered by members.

Period of revolution of capital

As was pointed out earlier, contributions to both the Egg and Feed Capital Funds are revolved back to members in two or three years, the shorter period being the more usual. Information available from other coöperative associations in California indicates that the majority of associations revolve capital in five to seven years. A few associations revolve capital in less than five years, a few in over seven years.

The rate or speed of revolution of capital under the revolving-capital method is related to the size of current deductions contributed by members on business transacted with the association. If the capital needs and the volume of business transacted remained more or less constant, the period of revolution would be doubled if the amount of deductions were halved and vice versa. Thus, the Association could slow up the rate of revolution of its capital funds merely by decreasing the deduction per dozen of eggs in the Egg Capital Fund and allocating a smaller proportion of the annual overage in the Feed Department to the Feed Capital Fund.

There are advantages and disadvantages to a short versus a longer period of revolution of capital funds. The main advantage of a short period is that members may expect earlier repayment of capital contributions. This is of special importance for associations which do not pay interest on monies contributed to such funds. Also, if there

is a relatively rapid turnover in membership, the contributions of persons who have ceased to be members will be returned in a shorter period of time. This latter consideration has not been important in the P.P.C.C. because members have had the option of selling their Revolving Fund Certificates to the Association.

The most important advantage of a longer period of revolution is that immediate returns to members can be increased. For example, if the Association decided to double its period of revolution of the Egg Capital Fund, it could reduce the deduction for capital from 1 cent to $\frac{1}{2}$ cent per dozen and increase weekly pool payments by a like amount. This should improve the Association's competitive position in the procurement of eggs from members to that extent. In regard to Feed Capital Funds, the Association could reduce its markup of 8 per cent to, say, 6 per cent

or 5 per cent—thereby being in a position to lower its current prices on feed and supplies. This would result in a lower annual overage on operations of the Feed Department. As a result, the annual patronage refund would be reduced, and the rate of revolution of Feed Capital Certificates would be reduced. Again, such a change in policy should tend to improve the Association's immediate competitive position in regard to the sale of feeds and supplies. In times of stress (as in 1954 and probably also in 1955), large numbers of members are more interested in immediate cash returns than in deferred patronage refunds of doubtful size. The cost of issuing and redeeming certificates would be reduced if the period of revolution were increased.

It is recommended that the Board of Directors seriously considered lengthening the period of revolution of Egg and Feed Capital Funds.

Federated Versus Centralized Organization

In a memorandum on the scope of the proposed study of the operations of the Association, the general manager had raised two questions about its form of organization. The first was whether or not an association of its size was likely to be less flexible under its present centralized form of organization than it would be if reorganized as a federated type of association. The second asked whether the interests of members would be more adequately served if the feed and supply activities and the egg-marketing activities were placed in two separate cooperative associations.

These questions arose from the fact

that three smaller independent local feed and supply associations have operated successfully for many years in the same territory as that served by the P.P.C.C. In addition, a local egg-marketing association (the Poultry Producers of Northern California) has operated successfully for many years in Humboldt County, although it is also a member of the P.P.C.C.—a sort of federated arrangement.

In the course of interviews with members, branch managers, and others, three plans of organization most often came up for discussion as possible alternatives to the present plan. The first suggestion

was that a number of regional associations (within the area now served by the Poultry Producers of Central California) be formed to handle both the receipt, packaging, and local sale of eggs, and the milling and sale of feed and the sale of supplies to members. The regional associations would be affiliated with an area-wide federated association for the sale of eggs in the Bay area cities and for the volume purchasing of feeds and supplies. The second plan suggested was a separate centralized association to handle the egg business and another to handle feeds and supplies. The third proposal was that the egg business continue on a centralized basis as heretofore but that the feed and supply business be reorganized in a number of separate, more or less independent regional associations.

It may be well at this point to examine briefly some of the conditions under which federated and centralized types of organization have been most successful. The federated type of organization has been particularly well adapted to a situation in which the assembly, processing, and packaging of a product are completed at the local level, the product then moving on to one or more distant markets for merchandising under the unified direction of a single federated organization. In California this was notably true of the fruit- and nut-shipping industries in the early days. In the case of citrus fruits, fresh deciduous fruits, and fresh grapes, the fruit needed to be assembled, graded, packed, loaded on railroad cars, and shipped for ultimate sale in midwestern and eastern markets. Experience showed that these operations could be performed efficiently and expeditiously by locally owned and operated associations. At the same time, experience showed that distribution of fruit over time and distance and selling, except for local use, could be performed most efficiently through a central marketing organization of which the local

associations were members. At the local level the central association (for example, Sunkist Growers, Inc.) advised on and supervised grading and packing to the extent that a central brand (for example, Sunkist) was used.

In the early days the federated plan of organization also worked well for the coöperative handling of almonds, walnuts, butter, and cheese. When it became necessary to process a large part of each year's almond crop, the California Almond Exchange changed over from a federated to a centralized form of organization. The buildings and other facilities of some of the old local associations were taken over by the Exchange and operated as local receiving stations. The California Walnut Growers Association has continued to operate as a federated organization, although a growing proportion of each year's crop is being processed at a central plant for sale in retail packages.

The Challenge Cream and Butter Association, with headquarters in Los Angeles and selling branches in several urban centers in California, has long operated successfully as a federation of local creameries whose major product was butter and skim-milk by-products. In recent years, however, the present federated plan of organization has proved to be less well suited to meet the modern type of competition in the dairy industry. The large modern dairy-products merchandising concerns handle a variety of dairy products including market milk, market cream, ice cream, evaporated milk, butter, cheese, and so on. Under the conditions that exist in California today, the federated plan does not appear to provide the degree of co-ordination needed between raw-product handling and sales activities. This seems to call for a small number of multiple-product plants at the local level or a multiple group of specialized plants so that the raw product (whole milk) may be diverted readily from one use to

another without regard to place of origin as demand and supply conditions change the price structure.

Unfortunately, local associations, each with its own ambitions as embodied in local management and local pride, have usually been unwilling to adjust to the new competitive situation. The result is an unhappy competitive picture which may weaken the bargaining position of dairy producers.

The centralized type of coöperative association has worked well where there was a need for processing that could be done most economically in plants large enough to serve rather extensive areas. The Sun-Maid Raisin Growers' Association and the California Prune and Apricot Growers' Association are cases in point. Sun-Maid has been a centralized association since it was first organized. The California Prune and Apricot Association, organized originally on a centralized basis, was reorganized on a federated basis during the 1920's. Actually, however, it is still largely a centralized type of organization with processing concentrated in a plant at San Jose. In both cases elaborate processing and packaging equipment is provided at headquarters where all fruit is prepared and shipped. The local associations in the one case serve largely as assembly and storage plants.

The federated type of organization is often said to be more "flexible" than the centralized plan in the sense that local associations can adjust policies and operations more readily to reflect changes in local conditions or membership wishes and attitudes. Bylaws can be changed with the minimum of delay and expense; financing can be arranged to meet local needs; pooling can be adapted to local conditions or members' whims; members exercise direct control over the erection and operation of processing facilities—they can be frugal or extravagant; and they can hire or fire the manager. It is claimed that possession of

these rights and privileges by members of local associations tends to develop local pride and a sense of achievement.

Some of these close contacts and interests are lost, or difficult to maintain, in a centralized association which operates over a wide territory. Members in a locality served by a branch of a centralized association have no direct voice in the hiring or firing of the local manager or in the nature of the facilities provided. It is difficult at times to modify over-all policy to meet special local conditions with regard to such matters as pooling and the various services provided. There are definite psychological and other advantages in local autonomy.

On the other hand, it is important to realize that the overwhelming consideration is the development of an effective marketing program. Costs of local assembly, processing, and packaging normally constitute only a small proportion of the price obtained for products in the wholesale markets of large consuming centers. Local assembly and processing must be coöordinated with the over-all selling policy and program. If this is not done, much of the effectiveness of collective effort by farmers may be lost or dissipated. Local autonomy may be an expensive luxury if it interferes with or hampers the important task of merchandising. Even in a centralized association, it is possible to meet most of the desires and wishes of members in the various areas served through an effective program of member relations or field service.

As was pointed out earlier, the Poultry Producers of Central California operates in an overlapping supply and consumption area in regard to the marketing of eggs. It has built up an enviable reputation for its Nulaid brand of eggs. This has been done by establishing high grading standards and developing a system of grading which makes the output of the various egg-candling and packing branches as uniform as possible. Further-

more, as was pointed out earlier (p. 42), there are often differences in the proportion of eggs produced in different areas that fall into the various size and quality categories. In addition, some of the local consuming centers in the area served prefer eggs of particular sizes and grades. Production in such local areas is often inadequate to meet the local demand by size and quality. Because it operates over such a wide territory, the Association is able to shift eggs from one branch to another to meet local supply and demand conditions. Moreover, the Association can shift eggs from one branch to another when operations in one branch are temporarily handicapped by breakdown of equipment or by local epidemics among employees. This gives the Association considerable flexibility in its important task of selling eggs.

The Association can also maintain a similar high degree of flexibility and coordination of its feed operations. Because it purchases feed in large volume to serve a wide territory, it is able to gain many of the advantages of large-scale buying. It can employ highly trained men to undertake the buying of raw materials and equally well-trained men to operate the mills and merchandise the feed. It can utilize a control department, competently staffed, for the purpose of improving the quality of feeds. Because it operates several feed mills strategically located, it can use and maintain output even if operations in one mill are temporarily suspended for repairs. It can also make effective use of processing-in-transit privileges applied to out-of-state rail receipts of grain. Again, because of centralized supervision and control, the Association can maintain uniform standards in feed produced in the several mills.

Finally, the weight of evidence appears to be in favor of joint handling of eggs and feed through a single organization. Most of the feed mills are in the same buildings as the egg-candling and pack-

aging branches. The local branches served by the mills are collection centers for eggs and distribution centers for feed and supplies. Many of the trucks used to distribute feed to individual poultry enterprises also pick up eggs. From the main office down to the branches, there is a joint use of both facilities and personnel.

Although there is some difference of opinion among members and even groups of members as to possible modifications in the operational structure of the Poultry Producers of Central California, there is no widespread and universal demand for a change. The views expressed by members were more in the form of questions—wouldn't this or that change or modification lead to more efficient operation? It was also evident that personalities tended to color the views of particular producers. One producer would be highly critical of a local branch manager or of egg grading or of the price and quality of feed. The majority of other members in the area, however, would appear to be well satisfied with operations. Personal likes and dislikes are to be found in all organizations—local, federated, or centralized. Unless there is a large and well-defined indication that change or modification is necessary, it would be a wise policy to maintain the status quo.

The Poultry Producers of Central California has had a long history of successful operation. This is not to say that improvements in operations and practices cannot and should not be made. In the preceding pages many instances have been pointed out where greater efficiency can be attained. There is every indication also that the Board of Directors and top-level management are constantly seeking ways and means to streamline and improve operating practices. The fact that the Association proposed this study and that certain of the recommendations have already been

put into effect should be ample proof of this point. There is every reason to believe that if the P.P.C.C. develops an effective member-relations or field-serv-

ice system and introduces improvements in its internal operations as needed, it will continue to serve members as well in the future as it has in the past.

ACKNOWLEDGMENTS

The authors wish to acknowledge the splendid coöperation received from members of the Board of Directors of the Poultry Producers of Central California and from the management and personnel of the Association. Appreciation of their assistance in providing supplementary information is also expressed to the many poultrymen and representatives of other organizations and institutions, who contributed to this study.

APPENDIX A

During the past year or so positive action has been taken by the Board of Directors on several of the recommendations made. Action on several other recommendations has been delayed since in some instances, adoption would depend upon suitable amendment of the Association's bylaws. Positive action taken is as follows:

1. **Field-service representatives.**

Two field-service representatives were appointed in 1954 and steps are being taken to select two additional men.

2. **Producer financing.** The Poultry Producers Federal Credit Union has been encouraged to increase its loanable funds by soliciting funds from members. The Association has also made investment funds available to the Union. These increased funds will enable the Union to aid individual members in their seasonal credit needs. Commercial banks, production-credit institutions, and Federal Land Banks have also been asked to encourage greater activity in production financing.

3. **Milling costs.** All mills have been equipped to handle bulk feeds. As of January 1, 1957, bulk and sacked feed was to be priced separately. Bulk-feed prices were to be based f.o.b. the mill, plus proportionate sales costs and actual mill-to-ranch delivery costs. Through publicity and aid in financing the installation of feed bins, members are being encouraged to equip to handle bulk feeds.

4. **Branch operations.** One branch has been closed. Four branches are operated part time under two branch managers. Two additional branches also are operated on a part-time basis, thus allowing more time for the branch managers to undertake field work among members.

5. **Members' accounts.** Members whose purchases of feed and supplies do not average a minimum of \$25.00 a month have been placed on a cash basis. The payment by invoice of members' accounts was tested at three branches but did not prove to be feasible.

In January, 1957, the Board of Directors announced two important changes in operating policy and procedure which tended to implement still further the recommendations made in this report. First, the deduction to cover egg-handling costs was to be reduced from 7 to 6 cents a dozen. Second, it was announced that sales of feed and farm supplies would be made to nonmembers as well as to members. Each nonmember would be required to sign a letter of agreement setting forth his duties and obligations. This is to be regarded as a temporary and experimental arrangement pending a possible later amendment of the bylaws.

Several other modifications of operating practices are still under consideration, but nearly all of the major recommendations have now been implemented—in modified form in some instances—or found by later investigation not to be feasible.

APPENDIX B

University of California, Davis, California Department of Agricultural Economics

July 27, 1954

Questionnaire on Credit

1. Name of Association
2. Number of Members..... Feed patrons.....
3. Tons of feed (all types) sold last year.....
4. Tons of mixed feeds sold.....
5. Total value of sales of feed sold last year \$..... Supplies \$.....
6. Sales last year: Cash \$..... Credit \$.....
7. How often are patrons billed for feed and supplies sold on credit?
Weekly..... Twice a month..... Monthly.....
8. What percentage of patrons pay regularly?
Weekly..... Twice a month..... Monthly.....
Comments:
9. Do patrons receive discounts for cash? Yes..... No..... If so, what is the rate.....
Do patrons receive a discount for payment within a specified period after billing? Yes.....
No..... If so, what is the rate.....
Do you charge patrons for overdue accounts? Yes..... No..... If so, what is the rate.....
Comments:
10. Do patrons receive volume discounts? Yes..... No..... If so, kindly indicate practice.....
11. Does your association have a reserve for bad debts? Yes..... No..... If so, what is the amount \$.....
Comments:
12. What per cent of total sales in 1953 was bad debts..... What per cent of total sales was bad debts over the past 10 years—or for such other period for which you have tabulated data.....
13. Do you sell to egg producers only? Yes..... No..... If not, to what other groups of producers do you sell? (E.g., turkey producers, dairymen.).....
14. Do you have different credit terms for different groups of producers? Yes..... No.....
If so, kindly indicate differences.....
15. Do your bad debt losses run more heavily for fryer (broiler) or turkey producers than for egg producers? Yes..... No..... If so, indicate experience.....
16. Do you finance fryer (broiler) and turkey producers? Yes..... No..... If so, indicate basis.....
If not, how are such producers normally financed.....

17. What steps are normally taken to service delinquent accounts?.....

18. Do you believe that the credit policy of your association places you at a competitive disadvantage with independent feed dealers? Yes..... No.....
Comments:

19. Do you believe that a more liberal credit policy would enable your association to increase its volume of sales of feed and supplies? Yes..... No..... If the answer is yes, what would be the disadvantages.....

 If you liberalize credit policy would you expect heavier bad debts?.....

20. Does your association employ field men (or feed salesmen)? Yes..... No..... What is the nature of their functions?.....

 Do they play a role in servicing patrons' accounts?.....

21. General comments:

In order that the information in our publications may be more intelligible it is sometimes necessary to use trade names of products or equipment rather than complicated descriptive or chemical identifications. In so doing it is unavoidable in some cases that similar products which are on the market under other trade names may not be cited. No endorsement of named products is intended, nor is criticism implied of similar products which are not mentioned.

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